



ERNST & YOUNG
Quality In Everything We Do

e-Governance Roadmap for Good Governance in the state of NCT of Delhi

An initiative of the Government of NCT of Delhi under the National
e-Governance Plan

1. Disclaimer

Recommendations in this report are based on our review of the State's Government and departmental documents, discussions and feedback from senior functionaries of various departments and public information provided to us by the State. Ernst & Young made specific efforts to verify the accuracy and authenticity of the information gathered only in those cases where it was felt necessary.

As the basis of sample selection is purely judgmental, in view of the time available, the outcome of the analysis may not be exhaustive and representing all possibilities, though we have taken reasonable care to cover the major eventualities.

Distribution of this report is classified as restricted and should not be used, circulated, quoted or otherwise referred to for any other purpose, nor included or referred to in whole or in part in any document without the prior written consent of Ernst & Young Pvt. Ltd.

Table of Contents

1. DISCLAIMER	2
2. ABBREVIATIONS.....	5
3. ACKNOWLEDGEMENT	8
4. EXECUTIVE SUMMARY	9
5. BACKGROUND TO THE PROJECT	13
5.1. OBJECTIVE OF THE STUDY	13
5.2. SCOPE OF WORK.....	13
5.3. APPROACH TO THE STUDY	14
5.4. LIMITATIONS OF THE STUDY	14
6. PROFILE OF NCT OF DELHI.....	ERROR! BOOKMARK NOT DEFINED.
6.1. INTRODUCTION	15
6.2. GEOGRAPHY	15
6.3. DEMOGRAPHY	16
6.4. STATE OF HUMAN DEVELOPMENT.....	17
6.5. ECONOMY AND INFRASTRUCTURE.....	19
7. UNIQUE STRENGTHS AND WEAKNESSES OF NCT OF DELHI	24
7.1. STRENGTHS AND OPPORTUNITIES	24
7.2. WEAKNESSES AND THREATS.....	25
8. STAKEHOLDER'S NEEDS AND EXPECTATIONS	26
8.1. CITIZENS.....	26
8.2. BUSINESSES.....	26
8.3. GOVERNMENT DEPARTMENTS	27
8.4. OTHER STAKEHOLDERS	27
9. STATE'S DEVELOPMENT VISION AND AGENDA	28
10.GOOD GOVERNANCE VISION AND AGENDA.....	30
10.1. GOOD GOVERNANCE STRATEGY.....	30
10.2. WAY FORWARD	32
11.E-GOVERNANCE VISION	33
11.1. CITIZEN INTERFACE.....	33
11.2. IMPROVE INTERNAL EFFICIENCY	33
11.3. TRANSLATION OF THE VISION.....	34
12.E-GOVERNANCE FRAMEWORKS	35
12.1. INSTITUTIONAL & CAPACITY BUILDING FRAMEWORK	35
12.2. POLICY/ LEGAL FRAMEWORK.....	38
12.3. GOVERNMENT PROCESS RE-ENGINEERING (GPR) FRAMEWORK.....	40
12.4. FUNDING FRAMEWORK.....	43
12.5. PRIORITIZATION FRAMEWORK.....	44
13.SECTORAL STRATEGIES.....	46
13.1. HEALTH	48
13.2. EDUCATION	64
13.3. INFRASTRUCTURE	74
13.4. FINANCE.....	102
13.5. WELFARE	117
13.6. REVENUE	138
13.14. SUPPORT AND ADMINISTRATION	153

14.E-GOVERNANCE BLUEPRINT & ARCHITECTURE	164
14.1. OBJECTIVES & GUIDING PRINCIPLE	164
15.STATE-WIDE INITIATIVES	167
15.1. EXISTING STATE-WIDE INFRASTRUCTURE	167
15.2. EXISTING COMMON APPLICATIONS.....	167
15.3. PROPOSED STATE-WIDE INFRASTRUCTURE	169
15.4. PROPOSED COMMON APPLICATIONS.....	170
16.RECOMMENDATION & PRIORITIZATION FOR IMPLEMENTATION	183
17.ANNEXURE II: KEY OFFICIALS MET DURING EGRM STUDY:	186
18.ANNEXURE III: NATIONAL E-GOVERNANCE PLAN	188

2. Abbreviations

Abbreviation	Description	Abbreviation	Description
AAY	Antyodaya Yojna	DAMS	District Administration Management System
AIDS	Acquired Immune Deficiency Syndrome	DDA	Delhi Development Authority
APL	Above Poverty Line	DDO	Drawing & Disbursing Office
ASI	Archeological Survey of India	Deptt.	Department
BCP	Business Continuity Plan	DHS	Directorate of Health Services
BMS	Benefits Management System	DIS	Dealer Information System
BOLT	Build Operate Lease Transfer	DIT	Department of Information Technology
BOO	Build Own Operate	DJB	Delhi Jal Board
BOOT	Build Own Operate Transfer	DMS	Drugs Management System
BPL	Below Poverty Line	DOST	Delhi Online Sales Tax
BPR	Business Process Reengineering	DR	Disaster Recovery
CAG	Controller and Auditor General	DTC	Delhi Transport Corporation
CAL	Computer Aided Learning	DTTDC	Delhi Tourism and Transportation Development Corporation
CAPAM	Commonwealth Association for Public Administration and Management	DVAT	Delhi Value Added Tax
CBRM	Capacity Building Roadmap	ECS	Electronic Clearing Scheme
CBSE	Central Board of Secondary Education	EGRM	e-Governance Roadmap
CCEP	Continuous Career Enhancement Program	EI	Education Index
CDMA	Code Division Multiple Access	EIMS	Education Information Management System
CGA	Controller General of Accounts	FAS	Financial Assistance Schemes
CNG	Compressed Natural Gas	FCI	Food Corporation of India
CRGMS	Citizen Relationship & Grievance Management System	FDI	Foreign Direct Investment
CSB	Citizen Service Bureau	FPS	Fair Price Shop
CSP	Citizens Service Points	G2B	Government to Business
CST	Central Sales Tax	G2C	Government to Citizen
CTLIC	Community Technology Learning Center	G2E	Government to Employee

Abbreviation	Description	Abbreviation	Description
G2G	Government to Government	L & B	Land and Building
GIS	Geographic Information System	LAC	Land Acquisition Controller
GNCTD	Government of National Capital Territory of Delhi	LAN	Local Area Network
Gol	Government of India	LEI	Life Expectancy Index
Govt.	Government	LMS	Learning Management System
GPF	Government Provident Fund	MCD	Municipal Corporation of Delhi
GPR	Government Process Reengineering	MIC	Medical Information Centre
GSM	Global System for Mobile	MID	Medical Illustration Department
HDI	Human Development Index	MIS	Management Information System
HIMS	Hospital Management Information System	MLA	Member of Legislative Assembly
HQ	Head Quarter	MMP	Mission Mode Projects
HRD	Human Resource Development	MRD	Medical Record Department
ICDS	Integrated Child Development Scheme	MRTS	Mass Rapid Transit System
ICT	Information Communication & Technology	MTNL	Mahanagar Telephone Nigam Limited
ICT	Information and Communication Technology	NCT	National Capital Territory
IFCMS	Irrigation & Flood Control Management System	NDMC	New Delhi Municipal Council
IPR	Intellectual Property Rights	NeGP	National e-Governance Plan
ISB	Indian School of Business	NGO	Non Government Organization
ISDN	Integrated Services Digital Network	NIC	National Informatics Centre
IT	Information Technology	NISG	National Institute for Smart Government
IVP	Indira Vikas Patra	NOAPS	National Old Age Pension Scheme
JJ	Jhuggi Jhopris	NOC	No- Objection Certificates
KM	Knowledge Management	NSC	National Savings Certificates
KOD	Kerosene Oil Depot	O&M	Operations and Maintenance
KVP	Kisan Vikas Patra	OBC	Other Backward Caste

Abbreviation	Description	Abbreviation	Description
PAO	Principal Accounts Office	RWA	Resident's Welfare Association
PCO	Public Call Office	SBI	State Bank of India
PDIMS	Public Distribution Information Management System	SC	Scheduled Caste
PDS	Public Distribution System	SDLC	Software Development Life Cycle
PeMT	Project e-Governance Mission Team	SeMT	State e-Governance Mission Team
PFA	Prevention of Food Adulteration	SLA	Service Level Agreement
PG	Paying Guest	SMART	Simple, Moral, Accountable, Responsive & Transparent
PGC	Public Grievance Cell	SPIO	State Public Information Officer
PIN	Personal Identification Number	SRTC	State Road Transit Commissions
PKI	Public Key Infrastructure	ST	Scheduled Tribe
PMI	Project Management Institute	STQC	Standard Testing and Quality Centre
PPF	Public Provident Fund	SWAN	State Wide Area Network
PPP	Public Private Partnership	T&D	Transmission and Distribution
PR	Public Relations	TB	Tuberculosis
PTA	Parent Teacher Association	TD	Tax Deduction
PVC	Polyvinyl Chloride	TEG	Technical Evaluation Group
PWD	Public Works Department	TIAS	Tourist Information and Assistance System
QAI	Quality Assurance Institute	TIN	Transaction Identification Number
R&D	Research and Development	TMIS	Transport Management and Information System
RBI	Reserve Bank of India	UDIMS	Urban Development Information Management System
RCS	Registrar of Co-operative Societies	UNCHS	United Nations Center for Human Settlements
RDBMS	Relational Database Management System	UPS	Uninterruptible Power Supply
REP	Registered Education Providers	USD	United States Dollar
RF	Radio Frequency	UTCS	Union Territories Civil Services
ROR	Record of Rights	VAT	Value Added Tax
RPS	Refunds Processing System	VPN	Virtual Private Network
RTI	Right To Information		

3. Acknowledgement

We, at Ernst & Young, are grateful to the Government of NCT of Delhi (GNCTD) and National Institute for Smart Government (NISG), Hyderabad to have provided us with this opportunity to undertake this exercise of creating the 'e-Governance and Capacity Building Roadmap' for the State.

The team acknowledges with thanks the support and ideas provided by Smt. Sheila Dikshit, Chief Minister, Government of NCT of Delhi, Shri Ramesh Narayanaswami, Chief Secretary, Government of NCT of Delhi, Shri. G.Narendra Kumar, Secretary – Information Technology, Shri Prakash Kumar, IAS, Heads of all State Departments and all Delhi Government & NISG Officials for all the support and guidance extended in carrying out this assignment.

The Ernst & Young team would like to appreciate various senior Government functionaries, industry representatives, NGOs and citizens of NCT of Delhi who provided us with their valuable time to share their knowledge, views and experiences which were instrumental in accomplishing this task in such a short time-frame

4. Executive Summary

The Government of India (GOI) has formulated the National e-Governance Plan (NeGP) to expedite deployment of Information Technology in governance with a vision to improve delivery of government services to citizens, business and other stakeholders. It has been recognized that a quantum jump in the quality of services is possible only by adoption and implementation of the principles of e-Governance.

It is in this background that it is necessary to adopt appropriate strategies that involve a creation of e-Governance Roadmap and focus on Capacity Building to achieve the goals of NeGP.

As part of this process, the Government of National Capital Territory of Delhi along with NISG, Hyderabad has entrusted M/s Ernst and Young with the responsibility of preparing an e-Governance and Capacity Building roadmap that can be used to promote e-Governance across the State

The eGovernance Roadmap puts together the way forward for the State with respect to delivering the right service to its citizens in a better way. In the process of developing the eGovernance Roadmap, inputs from various stakeholders (Political leadership, Head of departments, departmental employees and citizens) were sought to develop an understanding of the development goals of the State, the service delivery mechanism and the challenges faced by the administration to deliver these services to various stakeholders. In addition, the current state assessment of eGovernance was conducted to understand the preparedness of the State to undertake the eGovernance exercise.

Based on needs and expectations of various bodies that need to be addressed by e-Governance, the following goals have been identified to essentially serve as drivers for the Vision Statement -

Goal # 1 – Provide Government services anytime, anywhere, at affordable costs with local language to all citizens improving the quality of life.

Goal # 2 – Enable transparent and accountable service delivery to businesses and other stakeholders, leading to greater economic development and creation of employment opportunities in the State.

Goal # 3 – Long term sustainability of the quality of service provision through innovation, process re-engineering, Public Private Partnership, citizen participation and automation of key departmental processes.

These goals are summed up through the e-Governance vision statement given below:

“Government of NCT of Delhi aims to create a state where all citizens can transact with the government electronically, with most of the services being provided online while ensuring that there is no digital divide”

The e-Government strategy for the state consists of a portfolio of ICT applications that will electronically deliver services of the highest quality to citizens (G2C), businesses (G2B), Government functionaries (G2G) and Government Employees (G2E). The services in the portfolio need to be prioritized on the basis of criticality and feasibility. The strategy also identifies core e-Government infrastructure, and builds a phasing plan for implementation.

The strategy further dwells upon the foundation required for e-Government, which includes the required institutional arrangements and capacity, and a set of policies, systems and procedures, and technical standards that will support implementation (the e-Government program), operations and management.

The environmental enablers for e-Government excellence include committed political leadership and a policy environment conducive to technology-enabled governance, administrative reform and Government Process Reengineering. Other enablers include the availability of policy, technical

and funding support from the Government of India (GOI), the experience base and best practices available from early adopters, and opportunities to deploy state-of-the-art technologies.

At present, e-Government maturity in National Capital Territory of Delhi is at an advanced level. While there are pockets of progress and excellence, such as Education, District Administration, Transport, Trade and Taxes, Excise & Entertainment and Health; there are gaps that need to be addressed in some areas of citizen services, and several areas of services to businesses, and G2G applications.

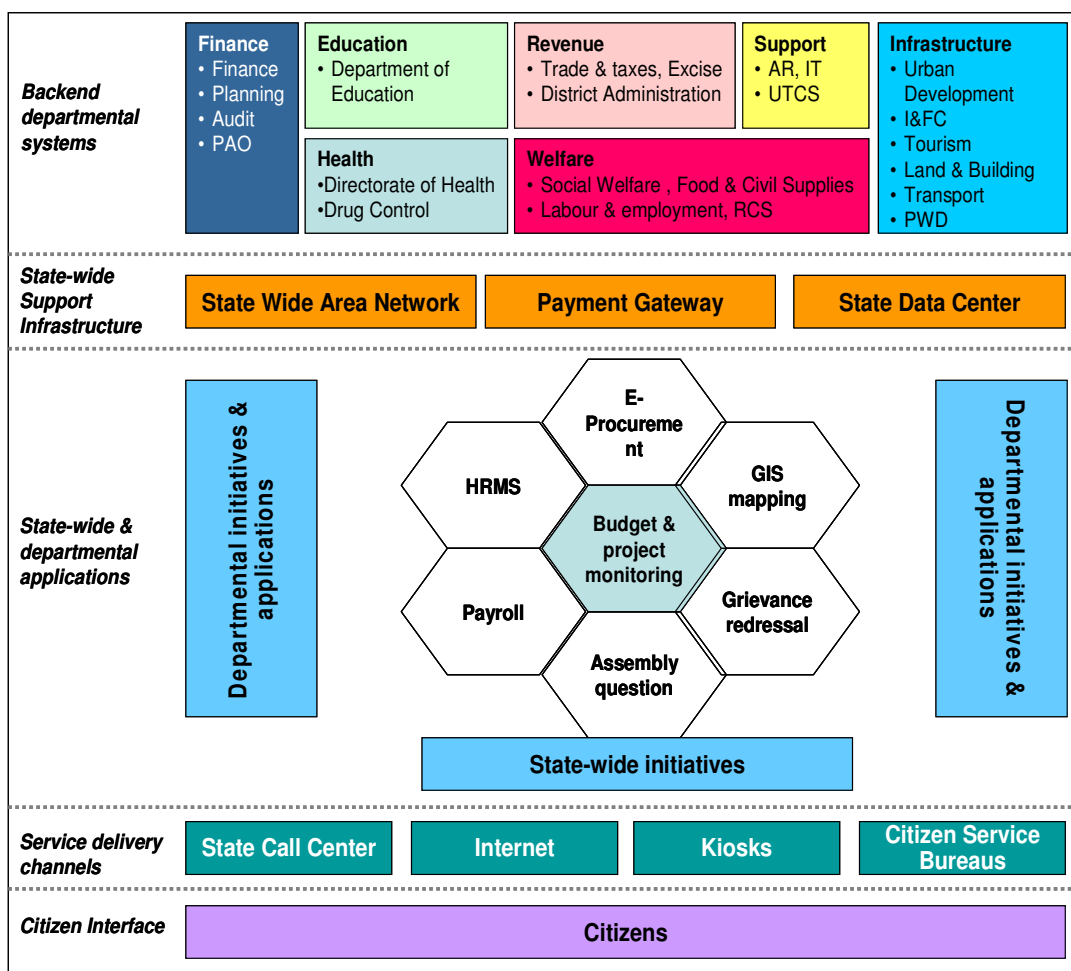
The state also needs to strengthen and rationalize the existing institutional framework for e-Government, and put in place a set of policies, systems, procedures and technical standards.

The key recommendations detailed in the EGRM to achieve the above mentioned vision and objectives include:

- *Enabling the transition of the current state of individual departmental initiatives to integrated transaction through a modular and scalable framework and provide scope for future expansions*
- *Moving all common services to Citizen Service Bureaus which would act as One-Stop-Shop for delivering various government services*
- *Leveraging intermediaries and public private partnerships to encourage usage and adoption of eGovernance and at the same time providing quality services and making the initiatives sustainable on a long term basis*
- *A paradigm shift from department based procedures/Initiatives to citizen oriented services is envisaged through necessary administrative and procedural reengineering as efficiency is the key ingredient to achieve the e-Governance Vision*
- *Core infrastructure like State Wide Area Network, State Data Center etc. , which would be the backbone for the departmental Governance, has to be developed and deployed throughout the State*
- *Promoting interdepartmental messaging service to support the electronic exchange of citizen data among government agency and departments.*
- *Improvement in the efficiencies within the government by way of consolidated databases that would provide relevant information faster and assist better enforcement of law by application of statewide common policies and regulations.*
- *Derive synergies to reduce duplicity from cross departmental interactions in areas like: maintaining citizen databases, usage of Common applications, GIS mapping etc.*
- *Focus on improvement of take-up of initiatives by operationalizing more citizen centric access channels and providing the citizens with a wider array of options*
- *Regular scrutiny of the overall progress of eGovernance initiatives with a comprehensive set of performance management tools to monitor the effectiveness of various initiatives*
- *The responsibility for implementing eGovernance should be decentralized though Program Management and Planning shall be centralized; there should be common guidelines and solutions to general problems of a legal, technical and organizational nature*

Having deliberated on the eGovernance vision and the key recommendations of EGRM, it becomes critical to have a comprehensive and robust implementation blueprint to take the vision forward.

Based on the above recommendations the following blueprint for the State of NCT of Delhi was envisaged;



e-Governance Blueprint for NCT of Delhi

The proposed architecture is a multi-tiered architecture where the **Back-end Departmental System** would contain the databases of the various State departments which could be collectively shared and utilized. The development, deployment, integration, centralization and updation mechanisms of databases would be standardized. Further these would be integrated with the state-wide data repositories at a later stage.

State-Wide Support Infrastructure would act as the backbone for NCT of Delhi consisting of the State Wide Area Network and the State Datacenter which would connect all the departments and provide access and connectivity to the Government employees and citizens across the State.

There is a lot of commonality in the processes followed by various departments and the process for service delivery in various departments, hence **Common applications** can be developed that can be used across the departments. This approach of reducing duplicity and integrated common applications will lead to standardization of processes and adoption of common standards, which are key enablers for promoting seamless integration. The **State-Wide Departmental Initiatives** would be moved to the center stage with a focus shift from stand-alone silo approach to a unified approach to provide better services to the citizens. These applications would be scalable to accommodate anticipated processing needs and include robust security functionality to prevent compromise of other integrated systems.

The end objective of the complete eGovernance vision is to provide an efficient, reliable, and transparent and time zone free services being at a single window. **Service Delivery Channel** such as Citizen Service Bureaus, single point entry Internet portals; state wide call center would simultaneously cater to all the departments and act as the Front-End to the **citizens** and efficiently translate the vision to provide easy accessibility across state.

The e-Government Strategy document identifies a definite direction on action required to realize the e-Government vision, such as, what needs to be done, how it can be done and who is responsible for what. Along with this the prioritization and sequencing of the projects and the interrelationships between them has been elaborated. The logical next step for the Government of NCT of Delhi to take is the design an e-Government Program that drills down the strategy further to implementation details. The State would then be in a position to take off on the e-Government runway once the e-Governance Program is in place.

5. Background to the project

e-Governance as a multi-dimensional concept cuts across leadership, policy, economic competitiveness, education, citizen services, internal government operations, digital democracy, and enabling technologies for each dimension. The Government of India (GoI) has approved the National e-Governance Plan for implementation during the year 2003-2007. The Plan seeks to lay the foundation and provide the impetus for long-term growth of e-Governance within the country. Major activities proposed in the National E-Governance Plan include formulation of core policies, HRD & training need assessment and development of core infrastructure & projects.

As a major objective the plan seeks to create the right governance and institutional mechanisms, set up the core infrastructure and policies and implements a number of Mission Mode Projects at the center, state and integrated service levels to create a citizen-centric and business-centric environment for governance.

NeGP is aimed at improving the quality, accessibility and effectiveness of government services to citizens and businesses with the help of information and communication technology. NeGP is structured on the philosophy of a centralized initiative with decentralized implementation. NeGP was formulated to address essential issues such as analysis of need for re-engineering, change in funding approach and envisages that government services be optimized and made available to citizens across the Country via a network of delivery centers to bring about efficiency, transparency and reliability in governance and to meet the basic needs of common citizens. The Government of India (GoI) plays a co-ordination role at the centre with the respective state governments managing the implementation of the planned e- Governance initiatives.

Considering the nature and scale of e-Governance initiatives planned under NeGP, the role of the State Government in managing these initiatives is seen as critical. It is also well recognized that for state to play its role effectively, significant capacities need to be build/upgraded. Thus, for the success of NeGP, it is necessary to build a strategic roadmap and enhance the capacities in the State Government and its nodal agency to enable issues to be dealt with in a fast and competent manner, with a holistic perspective, ensuring overall direction, standardization and consistency across initiatives.

5.1. Objective of the Study

In this context, the Government of NCT of Delhi intends to design a Roadmap for comprehensive development of e-Government with the objective of providing efficient services to its citizens and businesses and to enhance its internal and external efficiencies. This roadmap would address the unique needs and identify priority projects for implementing wide-ranging e-Governance services in Delhi. This has been done in keeping with the Government of India (GOI) National e-Governance Plan (NeGP) that aims to expedite deployment of information technology in governance with a view to improving delivery of government services to citizens, business and other stakeholders.

5.2. Scope of Work

To achieve the aforementioned, the Government of NCT of Delhi along with NISG, Hyderabad had engaged Ernst & Young as consultants to prepare the e – Governance Roadmap and Capacity Building Roadmap comprising of the following constituents:

- **Vision, Mission and objectives of e-Governance**

This section describes the essence of the e-Government scenario as visualized in terms of the major outcomes and their positive impact on the stakeholders. This vision is to be adopted by all the stakeholders and thus will become the shared vision that will drive all the downstream initiatives.

- **e-Governance Strategy**

The strategy describes in a formal way, how the e-Governance vision will be achieved. It takes into account all key objectives, means of achieving the objectives, target groups, target services and other inputs/resources required, that will lead to realization of the Vision.

▪ eGov Blueprint

The blueprint sets out the big picture of the key target areas of e-Government initiative and their relationships. It would be used as a communication tool that would provide a user friendly understanding of the complex workings of the initiative and provides a simple snapshot of the approach to e-Governance.

5.3. Approach to the Study

The development of the e-Governance Roadmap took place in various phases. The following exhibit gives an overview of overall approach and methodology adopted by Ernst & Young in preparing the e-Governance roadmap

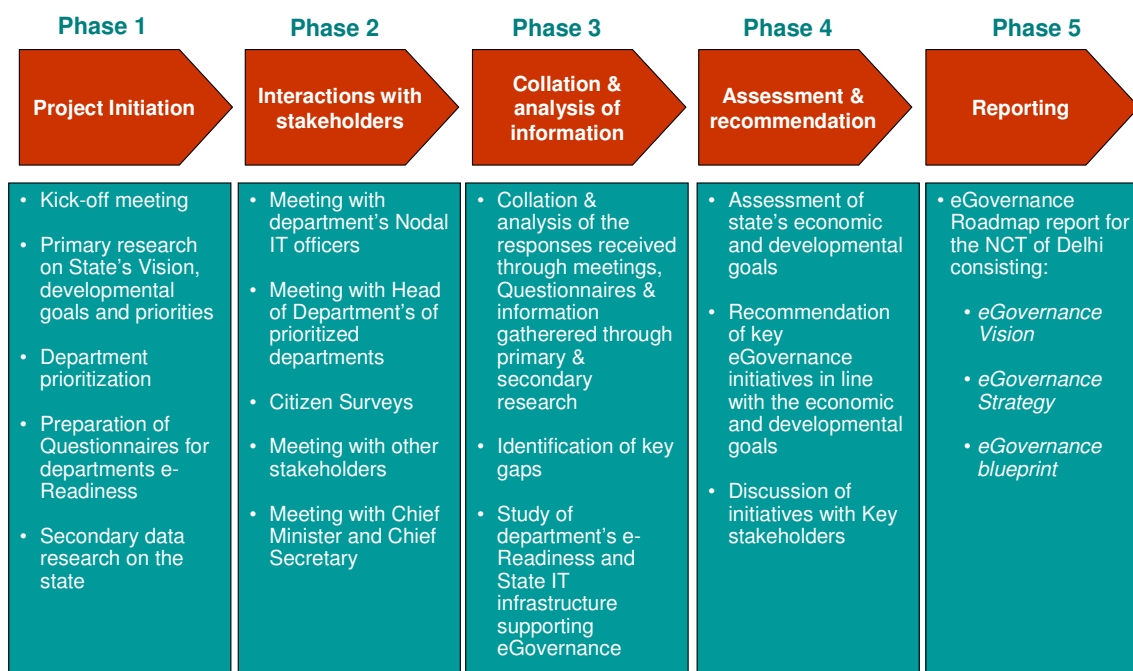


Figure 1 - Overall Approach for preparing e-Governance Roadmap

5.4. Limitations of the study

- The study is limited to the prioritized departments within the state. It is assumed that this is a sufficient and representative sample for the roadmap formulation exercise
- In line with the terms of reference, the report is based on the inputs provided by the departments during the interactions with Ernst & Young consultants
- The report is expected to set the agenda for e-Governance in the state. Thus, the extent of detailing captured in this report needs to be evaluated against a ten week time frame provided to Ernst & Young for the study. It is expected that departmental plans would be prepared separately in detail based upon the direction and strategies contained in this document
- While, the roadmap bases its strategy taking into account all common e-Governance initiatives in the state and those in the prioritized departments, there are bound to be independent and isolated initiatives that do not form part of the study and thus do not reflect in the roadmap. However, this should not restrict them to pursue other initiatives, as long as they are in conformance with the overall state e-Governance roadmap

5.5. Profile of NCT of Delhi- Introduction

Delhi, the capital of India is the third largest city in the country. The sprawling city is divided into Old Delhi and New Delhi; it gives the feel of the old and the new, with its ancient historical monuments interspersed with soaring skyscrapers, embassies and bustling commercial complexes. The city is a major travel gate way hub with a steadily-increasing quality of life, a booming economy and consumer market. Delhi also hosts many of India's major quality educational institutions, and is home to a number of think tanks, museums, art galleries, parks and theatres.

Delhi is the world leader in terms of operating the world's largest fleet of CNG buses. It also has the distinction of operation of Delhi Metro, becoming one of Asia's newest rapid transit systems to be built. **Delhi is also the host to 2010 Commonwealth Games; this is only the second time the event will be held in Asia.** The figure below gives a snapshot of the state profile of Delhi:

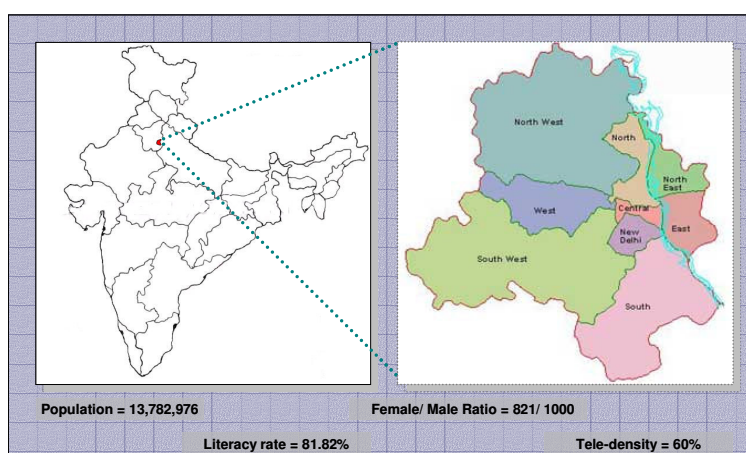


Figure 2: Snapshot of state profile¹

The profile of the state of Delhi can be better understood by studying its geographic and demographic profile; the state of human development and its economy and infrastructure. All these parameters elaborated in the subsequent sections will give a holistic picture of the NCT of Delhi.

5.6. Geography

The national capital territory of Delhi is located in northern India between the latitudes of 28°-24'-17" and 28°-53'-00" North and longitudes of 76°-50'-24" and 77°-20'-37" East. It has an area of 1483sq.km, situated between the Himalayas and Aravalis range in the heart of the Indian sub-continent. It is surrounded on 3 sides by Haryana and to the east across the river Yamuna by Uttar Pradesh.

Delhi enjoys the advantage of geographic superiority and being the capital of India; Delhi has a natural tourism advantage being the capital of the country and attracts a large number of tourists. Moreover its proximity from other major tourist destinations like Agra, Jaipur and many more in Uttaranchal, Rajasthan and Uttar Pradesh also makes it an attractive tourist destination. Delhi also has inbuilt linkages to other pockets of excellence spread across the country and overseas. This provides for excellent connectivity to other destinations in India and abroad.

¹ (<http://www.censusindia.net/profiles/del.html>) Census 2001

5.7. Demography

In terms of population Delhi holds the top position among Union territories and is ranked eighteenth among all States and Union territories in the country with a population of more than 13 million people. The density of population in Delhi (9,294 Persons/ Square Km) is also the highest among all States and Union Territories. Some of the key parameters of Delhi's Demography are as follows:

- The population of Delhi sharply rose by 46.31% during the decade 1991-2001. The annual growth rate of population of Delhi during 1991-2001 has been recorded as 3.85% and it is almost double the national average
- Female- Male ratio in Delhi has further widened when compared to the figure of 827-1000 in 1991 Census and was recorded as 821-1000 in 2001 Census
- Total literacy of the Delhi rose to 81.82% in 2001 from 75.29% in 1991. The Male literacy ratio of Delhi is 87.3% and the Female literacy ratio stands at 74.7%
- It is estimated that currently the migrants account for nearly 60% of the increase in population

Due to relatively high employment opportunities and better living conditions, Delhi has attracted millions of people from rural areas in neighboring states. The sharply rising population of the states is putting an immense pressure on the state's resources. There are a number of roadblocks that need to be addressed for Delhi in terms of robustness of infrastructure, roads, water resources, and housing. Concerns also arise in meeting the welfare needs of the population in terms of providing health care facilities, education, employment, electricity etc. All these concerns need to be addressed for the state to achieve its full potential. Efforts need to be made to make optimum use of the resources; they need to be trained so that their skills can be utilized for the betterment of the state.

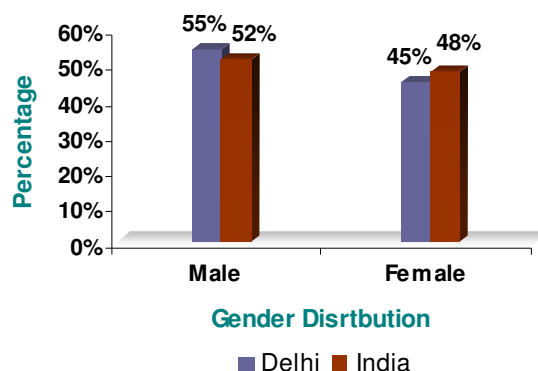


Figure 3: Population Break-up Delhi vs. India²

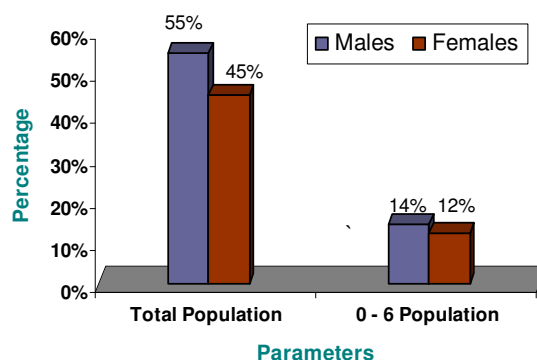


Figure 4: Delhi Population Distribution³

² Source: Census 2001

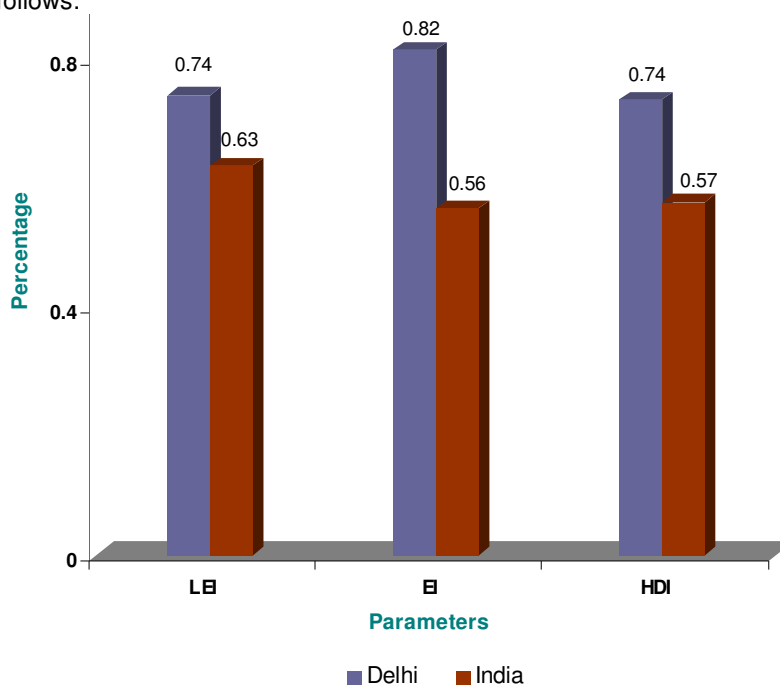
5.8. State of Human Development

Human Development is an indicator that cannot be measured merely by the rise or fall in National Incomes. It is a much larger term that encompasses indicators that define the state of well being of the citizens. It is about creating an environment in which people can develop their full potential and lead productive and creative lives in accordance with their needs and interests. The following facets can help us understand the state of human development in Delhi.

Healthcare

Delhi has a population of more than 13 million individuals who need Healthcare facilities; and in addition to that these facilities have to be provided to the floating population from neighboring states which constitute nearly 33% of total intake at major hospitals in Delhi⁴.

In Delhi, health care facilities are being provided by various Government & Non-Government and Charitable/ Private Organizations. Directorate of Health Services (DHS), Government of NCT of Delhi is the nodal agency committed to delivery of health care, it co-ordinates with other Government & Non-Government organizations for the improvement of the health of the citizens of Delhi. The quantitative details of the human development profile of the State⁵ are as follows:



Index

LEI : Life Expectancy Index
EI : Education Index
HDI : Human Development Index

Figure 5: Delhi Health Development Indices

³ Source: Census 2001

⁴ Source: Health and Family Welfare Department website

⁵ a. Human Development Report 2001, UNDP

b. SRS Analytical Studies Report no. 1 of 2000, Registrar General of India

c. Selected Educational Statistics as on 30th September 1999, Ministry of HRD, Govt. of India

d. National Accounts Statistics 2001, Central Statistical Organization, Govt. of India

e. Estimates of State Domestic Product 1998-99, Dte. of Economics & Statistics, Govt. of Delhi

There exists tremendous potential for the development of Delhi into a healthcare hub. The state has strong healthcare infrastructure and houses quality healthcare institutions and medical colleges. It also has skilled human resource and state of the art technology. However, the foremost challenge faced by the Health Sector is meeting the health care requirements of the growing population of Delhi and providing the best facilities to its citizens at the minimum possible cost.

▪ Literacy and Education

Education holds the key to economic growth, social transformation, modernization and national integration. The State has made considerable progress in the field of literacy and education. The literacy rate in Delhi has risen from 38.4 percent in 1951 to 81.8 percent in 2001, while the literacy rate at the national level for the corresponding period has risen from 18.3 percent to 65.4 percent.

The literacy rate among the population of Delhi⁶ is as follows:

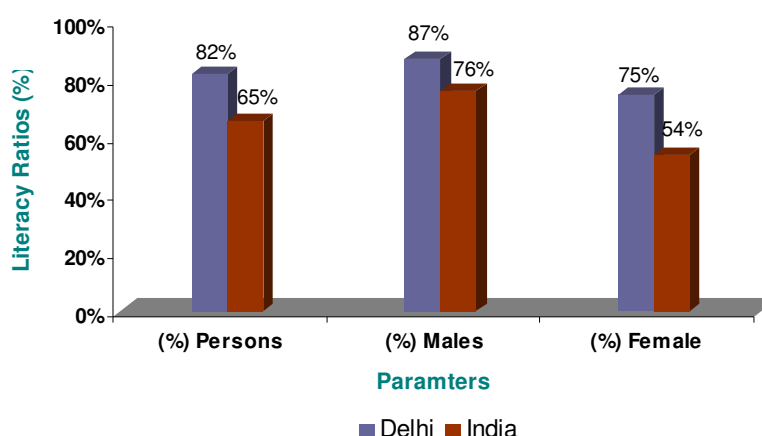


Figure 6: Literacy Rates – Delhi vs. India (Census 2001)

The educational facilities by the state are provided in stages i.e. pre-primary, primary, middle, secondary, senior secondary and university level.

○ Pre-primary and primary education

Pre-primary and primary education is mainly the responsibility of the local bodies (MCD, NDMC, Delhi Cantonment Board etc), the Govt. of Delhi has converted its 326 schools into composite schools now known as Sarvodaya Vidyalayas having classes from I to IV.

○ Middle, secondary, senior secondary education

Middle, secondary and senior secondary education is primarily looked after by Directorate of Education, Government of Delhi. The major challenge faced in achieving the aim of “Sarv Siksha” (100% Literacy) is the high drop out rates in schools of children belonging to the poor families as the children are also the bread earners for the family. Initiatives like Mid-day meals for students have been encouraged by the Delhi Government to ensure that the drop-out rates are curtailed.

Major programs in this direction could be focused towards providing vocational training and increasing the level of awareness among parents to ensure that they send their children to school.

⁶ Source: Census 2001

o University level education

At the University level, Govt. of Delhi is running 28 Degree Colleges being funded by UGC and Delhi Government. NDMC, though mainly concerned with primary education, is also running a number of middle, secondary, senior secondary schools in its areas at present. Apart from this a number of private organizations are also engaged in imparting education at all levels of schooling. These organizations are given grant-in-aid by Govt. of Delhi to meet the expenditure on education. Besides these, recognized unaided schools are also being run in Delhi by registered trusts and societies.

5.9. Economy and Infrastructure

As India's capital city and the most prosperous state, Delhi has become a nucleus of trade, commerce and industry in the northern region. The following Tables give a snapshot of the State Finances:

▪ State Finances⁷

Indices	Percentage
Gross State Domestic Product(Gross Fiscal Deficit)	2.9
Revenue Deficit	-2.1

Table 1: State Finances

▪ Decomposition of Gross Fiscal Deficit

Indices	2005-08 (Budget Estimates) Rs. Crore
Revenue Deficit	-2,469
Capital Outlay	1,831
Net Lending	2,590

Table 2: Decomposition of Gross Fiscal Deficit

Indices	2005-08 (Budget Estimates) Rs. Crore
Developmental Expenditure	7,683
Non- Developmental Expenditure	3,230
Plan Expenditure	5,732
Non- Plan Expenditure	5,768
Non- Plan Developmental Expenditure	2,974
Gross Interest Payments	24.3
Net Interest Payments	30.3
Total Tax Revenue	7,503
Own Tax Revenue	7,503

Table 3: State Finances – Budget Estimates

Delhi has a strong and vibrant economy. The Gross State Domestic Product at current prices⁸ increased from Rs.80, 545 crore in 2003-04 to Rs. 90,733 crore in 2004-05 indicating a growth of 12.6% The Per Capita Income of Delhi is estimated at Rs. 53,976 in 2004-05 as

⁷ <http://rbidocs.rbi.org.in/rdocs/Publications/pdfs/68460.pdf>

⁸ Source : Delhi Budget Speech 2006-07

compared to Rs.23, 241 at the national level. Delhi's per capita income has been consistently more than double the national average, both at current and constant prices as indicated below:

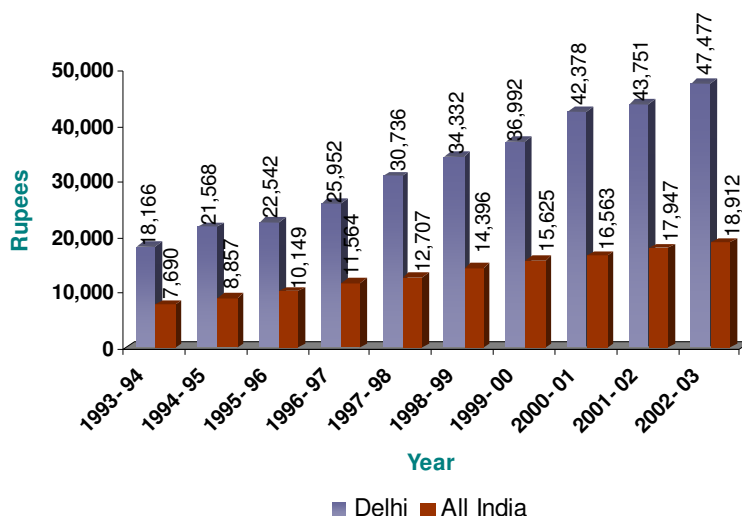


Figure 7: Per Capita Income – Delhi vs. India (Current Prices)

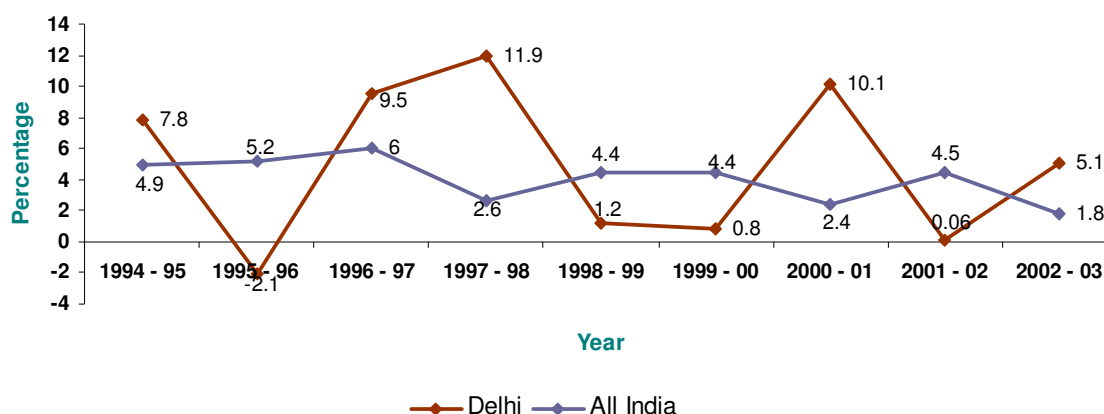


Figure 8: Annual Growth in Per Capita Income at Constant Prices – Delhi vs. India

Trade and commerce have played a pivotal role in shaping the development of Delhi's economy by making a significant contribution in terms of tax revenues and providing gainful employment. Delhi is the biggest consumption centre in North India.

Delhi distinguishes itself as a centre for entrepot trade which means that large part of its economic activity is concerned with the redistribution of goods produced elsewhere and imported for local sales as well as for export to other states i.e. interstate sales. It has attained the status of a major distribution centre by virtue of its geographical location and other historical factors, availability of infrastructure facilities etc.

Delhi is also categorized as a "service town"; however, industry is rapidly expanding. Delhi is the largest commercial center in North India. Engineering, clothing and chemicals predominate, although electronics and electrical goods are gaining in importance. Services like banking and commerce are also gaining importance. It is also the largest center for small industries manufacturing T.V. sets, musical systems, electric goods, light engineering, automobile part, sports goods, bicycles, plastics, PVC Goods, textiles, fertilizers, medicines,

hosiery, leather goods, soft drinks etc. There are also units for metal forging, casting, galvanizing, electroplating, printing and warehousing.

The manufacturing sector in Delhi contributes about 10% to the state income. The main sources of revenue for the State Government are Sales Tax and Excise. Sales Tax is the highest revenue earning department of the Delhi Government. The Revenue earning from Sales Tax amounted to Rs. 5,198.45 crores for the financial year 2004-05. Excise Department is the second largest revenue earning department of the Government of Delhi and is one of the three constituents of a Commissionerate, along with Luxury Tax and Entertainment Tax. The Revenue collected by the Department from the sale of liquor (Excise) amounted to Rs. 858.10 crores; Entertainment tax Rs. 39.01 crores and Luxury tax Rs. 140 crores for 2004-05

▪ Infrastructure

The mission statement of the Govt. of NCT of Delhi for Infrastructure and transportation is, “To provide safe, eco-friendly, cost-effective and efficient modes of transportation through a well integrated multi-modal transport system “

The situation as far as transportation is concerned is likely to worsen due to increasing population and economic growth. The population of Delhi is expected to grow from 138 lakh in 2001 to 230 lakh by the year 2021. However the daily transport demand is expected to grow from 139 lakh in 2001 to 279 lakh passenger trips by the year 2021. To cater to this demand, the mass transport system will need to be augmented substantially and the road infrastructure, traffic management and associated amenities improved substantively.

There are several factors responsible for the prevailing road congestion, pollution and lack of road safety. The basic cause, however, is the imbalance in the modal mix of passenger traffic carried by various modes of transport. There is a preponderance of low capacity vehicles such as two wheelers and cars. This is induced by increasing inadequacy of mass transport to cater to travel demand both in quantity and quality.

To overcome these challenges the Delhi Government has started the Metro and has also embarked upon projects to increase the length of roads, build new roads and flyovers. Some of the vital infrastructural parameters are detailed below:

○ Road

Roads are an important means of transport in and from Delhi. The length of surfaced roads is 1,690 km per 100 sq km. whereas the overall road length is 18,657 km. Delhi is well connected through a network of national highways. The transportation system in the National Capital Territory of Delhi is road based. The road pattern is generally conforming to ring and radial system. The area of roads in Delhi is about 14% of the total land.

Delhi has the highest ratio of vehicles per capita in India. Government-owned-Delhi Transport Corporation buses, and private buses, including chartered buses, White-line buses and Yellow-line buses also play a crucial role in connecting Delhi. Delhi has one of India's largest Bus transport systems.

DTC operates the world's largest fleet of environmentally friendly CNG buses. While not very high-tech, they pollute much less than the poorly designed and maintained diesel buses of most other State Road Transit Commissions (RTCs) in India. The buses are also much easier on the lungs of other road users. Directly, and indirectly, the gas-burning buses have also somewhat reduced the downward trend in Delhi's air quality and related illnesses.

Like many other cities in the developing world, it faces acute transport management problems leading to air pollution, congestion and resultant loss of productivity. Delhi's state government initiated a massive traffic decongestion plan in the late 1990s, investing billions of dollars in the road transport system. Today, there are more flyovers and highways in Delhi than in all other Indian metropolitan cities combined. The city's

transportation system is regarded as the best in India. The Government's efforts have also helped reduce air pollution in the city.

○ Rail

Delhi is the hub of the Indian Railways network with Express trains to all parts of the country. Delhi is very well connected with all the state capitals in the country as well as other cities through a well laid out railway network. The railway track length is 13.5 km per 100 sq km.

Delhi has a large and efficient railway network and helps connect other cities as well as major parts of the city and its suburbs. The major railway stations connected through the trains are Old Delhi, Hazrat Nizamuddin, New Delhi, Okhla, Pragati Maidan, Shahdara, Shakur Basti and Tilak Bridge.

○ Air

Delhi is well connected with the metro cities and tourist places via airways. It is the main gateway city for northern India. All major international air carriers operate direct services to Delhi from various centers in the world.

The Indira Gandhi International Airport (DEL) is located twenty-four kilometers south of Delhi. Safdarjung and Palam airports are the two other domestic airports. The process of handing over the Delhi airport for modernization to private parties is gaining pace under the supervision of civil aviation ministry.

○ Delhi Metro

Delhi Mass Rapid Transit System (MRTS) or Delhi Metro is a rapid transit system in New Delhi operated by the Delhi Metro Rail Corporation Limited. Delhi Metro was opened in 2002, becoming one of Asia's newest rapid transit systems to be built.

Delhi Metro has achieved the ISO 14001 certification for environment management since the beginning of construction. The entire construction is accredited as cost saving and without time overruns. Delhi Metro currently covers 56 km of the city with 50 underground and elevated stations on three separate lines. The unique feature of the Delhi Metro is its integration with other modes of public transport, enabling commuters to conveniently interchange from one mode to another. Delhi Metro is a trendsetter for such systems in other cities of the country and in the South Asian region.

○ Power

The crowning achievement of the Delhi Government has been the steps taken to privatize the transmission and distribution of power by the restructuring of the Delhi Vidyut Board. Some of the features of power distribution in Delhi include:

- a) Very high per capita consumption – per capita consumption in Delhi is about 1,228 units against the national average of 338 units (1998-99)
- b) Rapid growth in load and consumption both, Delhi's population and the urbanized area have been expanding rapidly both in a largely unplanned manner. Therefore, the system has to be augmented every year and arrangements for purchase of more power have to be made every year on larger scale than in other metropolitan cities in India
- c) Unauthorized development: In Delhi the advantage of negligible agricultural power is off-set by the presence of unauthorized colonies. Electricity is stolen in unauthorized colonies and jhuggies, which we are not formally electrified and metered. It will be a Herculean task to bring the unauthorized areas within the billing net

- **Telecommunication**

The telecom services have been recognized the world-over as an important tool for socio-economic development for a nation and hence telecom infrastructure is treated as a crucial factor to realize the socio-economic objectives.

A variety of telecom services like electronic mail, voice mail, data services, audio text services, radio paging and cellular mobile telephone services are available to the users in Delhi. According to the data available with the Department of Telecom, the Government has cleared 67 Delhi-specific Telecom FDI proposals worth Rs 2,938 crore over the three-year period 2004-07.

Delhi has more than 5 million GSM subscribers and 1.8 million CDMA subscribers in 2005, with the presence of all major Telecom companies like Airtel, Hutch, Reliance, MTNL, TATA Tele-services and Idea. Delhi has 2 million and Mumbai 2.4 million fixed phones. Delhi has an overall tele-density of 60% (including mobile and fixed line), and a mobile tele-density of 43% which is the highest in the country.

6. Unique strengths and weaknesses of NCT of Delhi

6.1. Strengths and Opportunities

- The biggest strength of Delhi is being a city state with cohesively woven social infrastructure. Delhi spreads across 1483sq.km which puts it in a unique position as compared to other states in terms of the length and breadth of the state to be Governed
- Delhi is a robust and lucrative state with a GDP Per Capita⁹ of USD 4,876 compared to the Indian average of USD 2,248. Delhi contributes to nearly 25 % of the FDI Inflow¹⁰ to India with its share of inflows is USD 4,840 million
- Delhi enjoys the advantage of being the capital of India; Delhi has a natural tourism advantage being the capital of the country and attracts a large number of tourists. Moreover its proximity from other major tourist destinations like Agra, Jaipur and many more in Uttaranchal, Rajasthan and Uttar Pradesh also makes it an attractive tourist destination
- The literacy rate¹¹ in Delhi is 81.8 percent as compared to National average of 65.4 percent. This puts Delhi in an advantageous position wherein ICT could very well be used as an enabler to deliver services as against the traditional ways
- Delhi has a strong and vibrant economy. The Gross State Domestic Product at current prices increased from Rs.80,545 crore in 2003-04 to Rs. 90,733 crore in 2004-05 indicating a growth of 12.6% The Per Capita Income of Delhi is estimated at Rs. 53,976 in 2004-05 as compared to Rs.23,241 at the national level
- Delhi is the host city for 2010 Commonwealth Games. This provides Delhi an opportunity to augment its infrastructure and facilities in turning itself into a “World Class City”
- Delhi has an advantage of effective governance principles already in place by the means of dynamic decision-making mechanism and initiatives like Bhagidari, Delhi is among the best in terms of attracting active and long-term participation from various external entities in different domains of its economic and social life
- As mentioned in the profile of the state, Delhi is established in Service Industry and it makes a considerable contribution to Delhi’s set-of-strengths. Active participation from the private sector and optimized utilization of its resources, would enable the State’s complete successful transition to the next stage of governance
- Delhi is the National Capital and a Metropolis; the thrust is on encouraging modern Hi-tech, sophisticated export-oriented small scale industries in Delhi as well as those industries which do not stretch its resources such as land, water and electricity
- Delhi provides ample employment opportunities and has highly qualified and technically trained professionals due to the well developed Education sector
- Apart from the current state of basic infrastructure being well developed, Delhi also is strong in advanced physical infrastructure like strong rail, road, flyovers, metro and air transportation links within and across other parts of the country. Additionally Delhi has a robust and wide-spread Telecommunication network adding to the advantage
- Delhi has overall achieved an above deemed levels on various human developmental indices/standards. It has literacy rates¹² above the national figures and the Death Rate

⁹ <http://delhiplanning.nic.in/Economic%20Survey/Ecosur2001-02/PDF/chapter22.PDF>

¹⁰ <http://exim.indiamart.com/economic-survey-2005-2006/pdfs/chap74.pdf>

¹¹ Source: Census 2001

¹² Source: Human Development Report 2004

came down from 5.93 per thousand to 5.81 in 2001, while the birth rate went down from 23.58 births per thousand during 2002 to 21.24 births per thousand during the following year

- Another area offering a lot of commercial and business potential is integration of all citizen databases and use it effectively to formulate policies and growth strategies

6.2. Weaknesses and Threats

- High crime rate¹³ and relatively poor Law and Order situation: The national capital, Delhi, continues to be the crime capital of the country, recording a crime rate that is more than double the national average among the metropolitan cities. According to the National Crime Records Bureau, Delhi's crime rate was put at 351.8 per lakh of population, much higher than the national average of 168.8 per Lakh of population
- High migration rate¹⁴: Current population of Delhi is about 13.8 million and is estimated to rise to 22.42 million by 2021. This puts lots of pressure of states infrastructure whether it be road, water resources, electricity, civic amenities etc. There is a constant need to upgrade and augment these facilities on an ongoing basis
- The situation as far as transportation is concerned is likely to worsen due to increasing population and economic growth. The population of Delhi is expected to grow from 138 lakh in 2001 to 230 lakh by year 2021. However the daily transport demand is expected to grow from 139 lakh in 2001 to 279 lakh passenger trips by the year 2021. To cater to this demand, the mass transport system will need to be augmented substantially and the road infrastructure, traffic management and associated amenities improved substantively
- Heavy T&D Losses of electricity, coupled with high per capita consumption of electricity and electricity theft puts Delhi in tight spot when it comes to provision of basic facilities and infrastructure like electricity
- Delhi is vulnerable to natural disasters like earthquakes and being the capital for all political activities external threats like terrorist attacks. These disasters can threaten the overall development of the State and there is a great need for focus shift from mere relief programs to long-term emphasis on disaster risk reduction and management
- A strategy around optimization of State's human capital for skill acquisition, enhancement and realignment of State's human capital developmental strategies needs to be developed and focus needs to be on creating a self-sustainable socio-economic infrastructure
- One third of Delhi's population lives in slums and un-authorized colonies thereby putting lots of extra pressure on the State's infrastructure

¹³ <http://ncrb.nic.in/crime2004/home.htm>

¹⁴ <http://static.teriin.org/reports/rep09/rep091.htm>

7. Stakeholder's needs and expectations

In the process of drafting the vision of the State, needs and expectations of major stakeholders have been taken into account. These include citizens, businesses and other stakeholders consisting of government departments and related establishments, financial and educational institutions and NGOs. The various needs and expectations of these stakeholders are elaborated in the sections below:

7.1. Citizens

- The citizens of NCT of Delhi require the basic troika of infrastructural facilities of **water, power, transport**, that are high quality, modern and are accessible, available and affordable to all. They want a complete re-look into areas of water resources, civil supplies and urban development, and desire increased involvement of private sector into operations of these domains
- There is a need for better **Healthcare facilities** like Institutional deliveries, protection against prevalent diseases, family planning, AIDS control, care Housing, age related problems and protection against prevalent diseases, etc
- The citizens want the **education** to be available to all, contemporary and skill-centric with strong linkages to changing demands of the regional and global economies
- **Road and public transport infrastructure** needs to constantly updated according to the growing development in other sectors
- As a high crime rate is a threat to the state, improvements are sought in providing a **safe and secure environment**
- The youth of the state looks at government for more **Employment opportunities**, whereas the Senior Citizens & special segments of the society look at government for **Financial Support**
- Citizens want the prompt and effective **disaster management system** in the State with inbuilt preemptory mechanisms. People desire that issue of social welfare be dealt via development plans based on contemporary socio-economic and behavioral studies ensuring maintenance of local identities and autonomies
- There is a need for **timely delivery of quality government services at economical rates, possibly through a single window access promoting transparency and fairness while providing government services**

7.2. Businesses

- Businesses desire the State Government to bring **efficiency** in its functioning and create a more **conducive environment for a competitive and vibrant market** in the State.
- A **single window clearance** and **friendly administrative procedures** for conducting business is sought. Further simplification of procedures for assessing revenues, filing returns and obtaining refunds is required.
- **Transparency** in dealer accounting process, procedures of enforcement agencies and a Consultative approach in policy making is also sought.
- **Augmenting existing infrastructure** and creating more infrastructure for commercial activities. Capacity augmentation of parking facilities in commercial areas and creation of alternate corridor for movement of commercial vehicles. Facilitating the implementation of environmental policy and procedures in terms of waste disposal

7.3. Government Departments

The lack of manpower resources and modern tools to transact with the stakeholders are hampering the government officers to effectively manage their respective mandates and this is resulting in common citizens not getting the benefits of various plans and policies. Access to contemporary and modern tools and technologies to aid in the process of plan and policy implementation, management and monitoring is paramount to the departments.

- **Government process re-engineering** coupled with intelligent systems developed on the basis of incremental modernization is important need for the Government departments.
- **Improved Interdepartmental co-ordination, sharing of information and common framework for administrative tasks** to remove duplicity of procedures and ride on common shared infrastructure of the Government.

7.4. Other Stakeholders

(NGOs, Bilateral and Multilateral donor agencies, Financial Institutions etc.)

- Suitable policy initiatives for the beneficiary, rights empowering the NGO to undertake key activities, encouragement of donations and contributions through Tax rebates and deductions
- Financial support services: Donations, soft loans for PPP programs and timely allocation of funds
- **Transparency and clear communication**, enhanced information sharing.
- Single window quick interface with no red-tapism
- Protection of worker's rights and commensurate compensation structure

8. State's Development Vision and Agenda

The e-Governance Vision would only be meaningful and sustainable if they are well aligned with the overall developmental and social needs of the State. The Delhi Government envisages turning Delhi into a world class city-state. It aims to convert Delhi into a city with modern, eco-friendly, cost-effective and efficient modes of transportation with uninterrupted supply of power and water, modern amenities and excellent services of sanitation and sewage disposal. The aim is to ensure that the basic needs, rights and entitlements of each citizen are fulfilled and the fruits of development percolate down to the lowest echelons of the society.

The Government is committed to the policy of progressive taxation which is aimed at equitable distribution of wealth in the society. It aims at rationalization and simplification of the tax laws and better tax administration, rather than simply increasing the tax rates, leading to better compliance and higher revenues.

The cornerstone of the development is the citizen. Development with a human face is the priority of the Delhi Government. The goal is to improve the quality of life of each individual in the city and to make the citizens happy and content.

For the human development of the State, the Delhi government aims at **modernization of health services especially via primary health centers and super specialty hospitals**. In the Education sector the endeavor is to **achieve 100% literacy** and a good standard of the education. For the Welfare of the women the State Government has introduced programmes like ' Stree Shakti' which aspire to **increase the status and well being of the women of Delhi**.

The State Government has also initiated programmes that aim at galvanizing the youth. The government plans to work on **employment generating schemes**, it wants to review and redesign the programmes for the Scheduled Castes / Scheduled Tribes, minorities and the weaker sections of the society.

For the Welfare of the rural population the government wants **to focus on the problems of slums and the unauthorized colonies**; to overcome this problem the government seeks to provide low-cost housing for the poor and the marginalized

Other initiatives include establishment of power plants at Bawana and at Indraprastha to make Delhi reduce its dependence on the Northern grid and other outsourcers; and to ensure a level-playing field among the stakeholders of the Delhi Electricity Regulatory Commission.

The State Government also proposes to ensure **enhanced water supply for the people of Delhi**.

The Delhi government is also making efforts to **augment the quality of roads to international standards**, to build up a network of flyovers and grade separators and to reduce traffic congestion by using **High Capacity Urban Buses, Electric Trolley Buses** etc. A major step in this direction has been the Delhi Metro.

The **Delhi Urban Environment and Infrastructure Improvement Project 2021** has been formulated with the objective of making Delhi "a well managed, clean and dynamic city serving its citizens, the nation and the world" and the following series of strategic actions and goals are recommended in the vision:

- **Urban Development Planning and Land Management**
 - Better Urban Development and Land Management through planned Development Actions at regional, city and local levels
- **Environmental Infrastructure**
 - Equal Access to Adequate Drinking Water and Sanitation - for all citizens
 - Water supply and wastewater collection to serve all areas of NCT including planned growth areas
 - Reduce environmental impacts of poor sanitation
 - Wastewater discharges to the Yamuna to be within prescribed quantity and quality limits

- Water demand reduced and service delivery improved through increased efficiency and commercial autonomy
- **Solid waste management**
 - *Clean and healthy streets and neighborhoods*
 - *Benchmarked improvement in removal of localized waste*
 - *Regulated improved treatment and disposal of waste*
 - *Improved sustainability by targeted waste reduction*
- **Traffic and transportation**
 - To provide, promote and ensure safe, economic and efficient movement of all categories of passengers and goods through an integrated multi-modal transportation system
- **Managing the Environment and Environmental Health**
 - To make Delhi a pleasant and healthy city to work and live in existing environment and health deficiencies alleviated
 - National and international environment and health standards achieved and maintained
 - Government, industry and communities achieve a shared vision for environment and health through a Citizens' Charter
- **City Governance**
 - To create an enabling institutional framework for sustained environmental and infrastructure improvement for orderly development;
 - Restructuring existing institutional structure
 - Filling gaps for policy formulation and monitoring
 - Ensuring participation of people in decision making processes
 - Ensuring appropriate funding arrangements

Creating a modern World City is the immediate agenda of the Delhi government; in this respect upscaling infrastructure is the topmost priority and power, water and transport services are crucial sectors that need attention.

Thus, the main agenda of the Delhi Government involves improving these basic essentials of infrastructure to enable citizens to go about their daily chores and tasks with the least difficulty and maximum comfort.

9. Good Governance Vision and Agenda

World over there is a strong emphasis on Good Governance to enhance the prospects for sustainable development. In India, as in the rest of the world, good governance fosters social and economic progress, which, in turn, helps sustain good governance. Based on this, the Delhi government sought to lay the foundation of a philosophy of good governance on three elements: **citizen-government partnership, electronic governance and overhauling of work procedures and culture.**

It has been painstakingly preparing the ground and has launched numerous initiatives under the umbrella of this strategy. **Government of Delhi endeavors to imbibe all the major characteristics of Good Governance like complete participation, consensus orientation, accountability, transparency, responsiveness, effectiveness, efficiency and respect for rule of law.** It strives to assure that corruption is minimized, the views of minorities are taken into account and that the voices of the most vulnerable in society are heard in decision-making. It is also responsive to the present and future needs of society.

9.1. Good Governance Strategy

This vision of good governance can only be realized to its fullest extent through an active partnership of citizens with an open, accountable and responsive government. As a Good Governance Strategy, the government would function as a **SMART (Simple, Moral, Accountable, Responsive and Transparent)** Government. It would act as a facilitator and catalyst of growth and remain sensitive to the need for social equity and well being, while enhancing its capabilities and encouraging and strengthening policy making and performance in the public service.

▪ Bhagidari

Governance as an interactive process involves various forms of partnership - no single actor, public or private, has the knowledge or resource capacity to tackle problems unilaterally. On this belief 'Bhagidari': the Citizen-Government Partnership has emerged.

The government is taking the necessary steps to institutionalize this participatory framework of governance with sufficient budgetary support. This has evoked in people a desire to be part of the democratic system and has helped channelize citizen volunteerism. The Bhagidari scheme has also received international recognition and appreciation.

The Commonwealth Association for Public Administration and Management (CAPAM) has appreciated the scheme as an innovative practice worthy of replication in other parts of the world. The Government of NCT of Delhi has decided to include the involvement of its officers in the 'Bhagidari' scheme and their commitment to the **concept of citizen's partnership in governance** as one of the parameters for appraising their performance in their Annual Confidential Reports and this has been recognized by the Government of India.

Additionally the Government has recognized and appreciated the role of private sector through various Public Private Partnership models; however, the Government will continue to make investments in strategic sectors where private sector may not be interested to the desired extent so that the gaps between the requirements of the society as a whole and existing capacity are bridged.

▪ Right to Information Act

In order to continue providing a transparent system of governance, the Government has taken the step of empowering citizens to seek information through the Right to Information Act. Additionally special emphasis is being laid on tackling corruption in all public dealing departments

▪ Government Process Re-engineering

Another good Governance measure taken by the government is the proposed restructuring of the Municipal Corporation of Delhi and other departments into more manageable administrative units towards making civic administration more transparent and accountable.

As a corollary to the above empowerment, nine District Development Committees have been set up with the objective to provide decentralized district level forums for resolving and monitoring issues pertaining to civic and other public utilities.

▪ **e-Governance**

Another important element of the Good Governance strategy has been introducing 'Electronic Governance', to ensure that transactions are completed in the most transparent manner, extensively used in all government offices with public interface, to de-mystify procedures and improve the Government-Citizen interface.

▪ **Grievance Redressal**

Public Grievance Redressal Cell has been set up in Chief Minister's Office and a dedicated website has been launched for registering grievances directly online. Grievances relating to removal of jhuggies and related matters, police cases, family disputes, unauthorized constructions, provision of civic and other public utilities, employment, allotment of Kiosks / stalls etc. to the handicapped persons, issuance of ration cards, old age pension, medical relief assistance, labour and other demands have been dealt with directly at the Office of the Chief Minister by registering complaints through special counters and taking Action Taken Reports on the complaints.

▪ **Delhi Vision-2021**

The Vision-2021 strives to make Delhi as a world class city, where all the people are above poverty line and are engaged in productive work. The infrastructure services are adequate, sustainable and maintain a circular metabolism with the natural resources. The overall objective of the vision is to achieve a restructured humane city made by citizens; which is modern and eco-friendly based on new technologies.

Vision for Delhi 2021 can be summed up as: ***"Delhi will be a well managed, clean and dynamic world city, serving its citizens, the nation and the world."***

Based on the above the following strategic objectives and the strategic actions have been identified to make Delhi a more environmental sustainable and livable city:



Figure 9: Delhi Vision 2021 Strategic Objectives/Actions

The specific objective and long term goals for city Governance as per the Vision 2021 is to create an enabling institutional framework for sustained environmental and infrastructure improvement for orderly development through:

- Restructuring existing institutional structure
- Filling gaps for policy formulation and monitoring

- Ensuring participation of people in decision making processes
- Ensuring appropriate funding arrangements

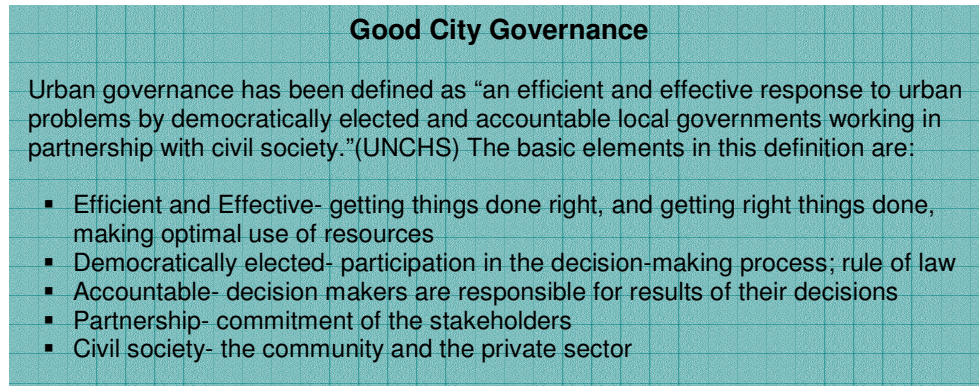


Figure 10: Delhi Vision 2021 Good City Governance

9.2. Way Forward

All these strategies can only “facilitate” the enhancement of transparency and effective public participation; however the concept of good governance will have to be evolved, modified and refined to suit the requirements of the society from time to time. It is important that a clear message is conveyed to all concerned of the government’s firm commitment to usher in good governance through e-Governance in the most effective manner. Hence there is a definite need for the State policymakers to address this issue anew and aim towards capacity-building of people to enable them to actively participate in these initiatives.

10. e-Governance Vision

The e-Governance vision has been drafted inline with the development goals and governance agenda of the current Government. Various State documents have been refereed to understand the development goals, governance style of the current government along with the strategic discussions with the Government, keeping in view the needs and expectations of the citizens, businesses and other stakeholders. Even the aspirations of the IT policy developed in 2000 in the state of Delhi governed by the following **6 E's i.e. Electronic Governance, Equality, Education, Employment, Entrepreneurship and Economy** has been taken into consideration. The objective of the IT policy with respect to e-Governance is to use e-governance as a tool and deliver a government that is more proactive and responsive to its citizens by playing an active role in the following areas:

10.1. Citizen interface

IT should not merely be used to automate its existing procedures but also to reinvent government processes and to redefine the role of bureaucracy. This would enable the government to make its functioning citizen-centric, transparent and efficient. The government shall set up the legal machinery to implement cyber law provisions regarding recognition of digital provisions regarding recognition of digital signature and electronic records and their use in government. It shall enable the citizens to conduct most of their transactions with the government through the Internet. The heads of department shall be responsible for the preparation and implementation of their respective departmental action plans. In addition, a detailed plan for employee training shall be implemented. The annual confidential reports of the employees shall reflect the employee performance in implementation of this policy.

10.2. Improve Internal Efficiency

e-Governance vision realization also requires improvement in government's internal efficiency, especially in the areas of internal communication and in data handling. Internal communication will be improved by increasing use of e-mail, bulletin boards and video conferencing in the government. Routine circulars, meeting notices, and minutes will be communicated through e-mail. Videoconferencing will be used to decide urgent matters in consultation with senior officers without calling them over from their offices. Data handling comprises data capture, data sharing, data storage, and data retrieval, data processing and data presentation.

Based on above and needs and expectations of various bodies that need to be addressed by e-Governance, the following goals have been identified to essentially serve as drivers for the Vision Statement -

Goal # 1 – *Provide Government services anytime, anywhere, at affordable costs with local language to all citizens improving the quality of life*

Goal # 2 – *Enable transparent and accountable service delivery to businesses and other stakeholders, leading to greater economic development and creation of employment opportunities in the State*

Goal # 3 – *Long term sustainability of the quality of service provision through innovation, process re-engineering, Public Private Partnership, citizen participation and automation of key departmental processes*

These goals are summed up through the e-Governance vision statement given below:

“Government of NCT of Delhi aims to create a state where all citizens can transact with the government electronically, with most of the services being provided online while ensuring that there is no digital divide”

Figure 11: Delhi e-Governance Vision

The vision of NCT of Delhi is inline with the NeGP vision *“All Government services accessible to the common man in his locality, throughout his life through a one-stop-shop (integrated service delivery) ensuring efficiency, transparency & reliability at affordable costs to meet the basic needs of the common man”*, as it stresses the importance of service delivery to all sections of society with utmost convenience, efficiently and with reliability.

10.3. Translation of the Vision

The ultimate vision of e-Governance is citizen service, reinforcing good governance and thereby contributing to the realization of economic and human development through the effective utilization of Information & Communication Technology (ICT). *The focus on internal efficiency, decentralization and transparency is paramount and this would also require the departments to work in closer correlation to each other.*

The vision implies optimum use of ICT by the government to deliver its services at the locations convenient to all stakeholders through cost-effective delivery options, in local language wherever required. This would also achieve reduction in paper work, improve the reach, and reduce the cycle times thereby minimizing the need for citizen's trips to government offices.

Further inclusion of all interfaces for the government services and schemes and proactive information dissemination through various mechanisms is required. There is a need for unambiguous trail of the service delivery procedure facilitating accountability, online file system and the progress of user transactions and retrieval of the same on user's query.

The government is expected to be exceedingly receptive, interactive, innovative and forward thinking in its relations, implementing a client-centered approach, and adapt to changing needs on an ongoing basis with integrated cutting-edge technologies. Promote inter-departmental co-operation and social, economical and political development of the state through the use of Information Technology in achieving the objectives defined above. Encourage effective mechanism for public and private sector to collaborate together and expand access to quality government services.

11. e-Governance Frameworks

With the organized effort towards e-Governance underway, the State Government would require tools, guidelines and methodologies that would enable them to plan a more informed and successful implementation of the e-Governance initiatives identified in this Roadmap. Suggestive strategic frameworks are provided in this section to help address various critical decisions or issues that would be part of the e-Governance exercise the State has undertaken.

11.1. Institutional & Capacity Building framework

As various initiatives which form a part of the e-Governance Roadmap would cut across multiple departments, it is expected that a formal Governance Structure is established starting at the highest level of political leadership to the field or operational team actually implementing the projects.

The structure would ensure the visioning, planning, implementation, monitoring and evaluation of e-Governance initiatives in the State. NeGP has recommended the following governance structure for the purpose of State level projects:

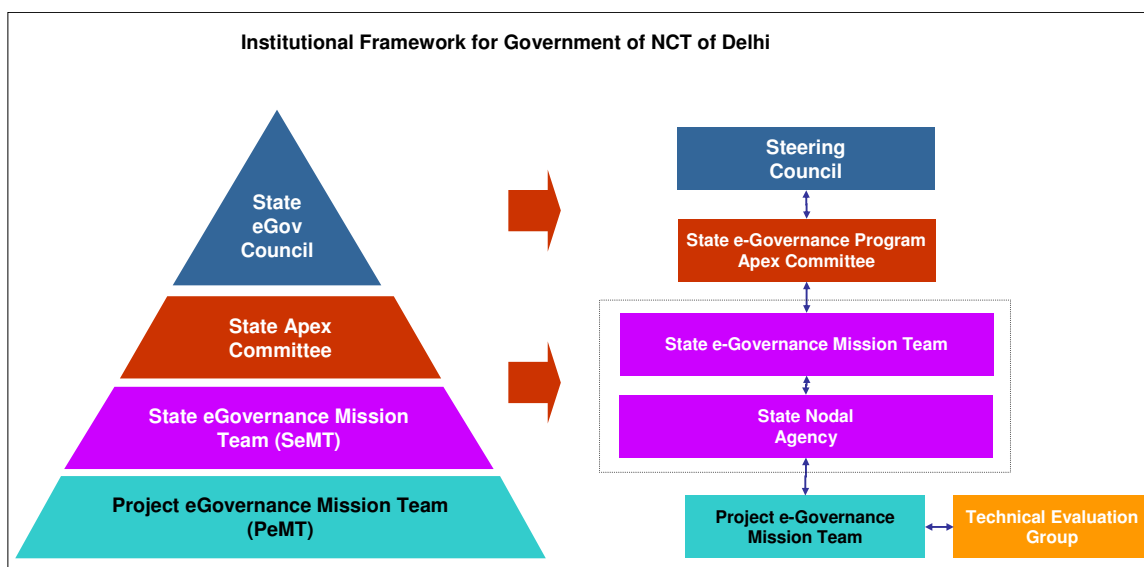


Figure 12: Institutional Framework for Government of NCT of Delhi

Government of India has suggested an indicative Institutional Framework for all the State Governments to utilize in their respective e-Government Plans. A robust and focused governance structure is necessary to successfully implement the various initiatives. In this endeavor, a multi-skilled, focused and robust structure inline with the recommendations of NeGP is being proposed with the following components:

- **Steering Council**
- **State e-Governance Program Apex Committee (SeGP)**
- **State e-Governance Mission Team (SeMT)**
- **State Nodal Agency**
- **Technical Evaluation Group**
- **Project e-Governance Mission Team**
- **State e-Governance Steering Council** would be set up under the Chairmanship of the Chief Minister to provide overall vision, direction and guidance to the State e-Governance Program

Primary Functions of the Steering Council would be:

- Align the e-Governance Policy with State Government developmental Goals/priorities
- Assess the impact of e-Governance on citizens and government services
- Formulate e-Governance vision and agenda in line with National e-Governance program
- Ensure allocation of financial resources to the e-Governance program

- **State e-Governance Program Apex Committee (SeGP)** headed by the Chief Secretary, should be responsible for providing the policy framework, overseeing State's e-Governance program and ensuring inter-departmental coordination to achieve the vision as defined by them.

Primary Functions of SeGP would be:

- Oversee and provide strategic direction to the State e-Governance plan
- Ensure inter-departmental coordination
- Ensure proper mobilization of resources
- Monitor utilization of resources
- Provide budgetary recommendations to Steering Council

- **State e-Governance Mission Team (SeMT)** would provide support to the State Apex committee and PeMT, as an advisory body for providing an overall direction, standardization and consistency for undertaking the ground work, handling the interdependencies, overlaps, conflicts, standards, overarching architecture, security, legal aspects, etc.

Primary Functions of SeMT would be:

- The State e-Governance Mission Team (SeMT) would act as the board for the states Nodal IT agency
- Support the State e-Governance Council & State e-Governance Apex Committee in their functioning and decision making process
- Function as the Board of State Nodal Agency for undertaking e-Governance projects
- Undertake the groundwork for providing for an overall direction, standardization and consistency through program management of the e-Governance initiatives in the State
- All interdependencies, overlaps, conflicts, standards, overarching architecture, security, legal aspects, etc. across projects as well as core and support infrastructure shared across several projects would fall under the purview of this group
- Speed up the decision making process by bringing various stake holders on one forum, providing technical opinion from experts to facilitate decision making and putting a regular monitoring mechanism
- Act as a link between the national and state e-Governance bodies
- Derive and share the learning from the existing state projects

- **State Nodal Agency:** The Nodal agency is expected to play a very important role as an enabler to promote e-Governance initiatives in the State. It is therefore expected to have very dynamic, motivated and experienced resources in its team and also have a strategy to retain them to sustain the e-Governance initiatives within the State. As a strategy to retain them, these resources should be motivated through attractive incentive alternatives. Within the Nodal agency, the following groups are recommended:

- **Technology Policy Support:** The Technology Policy Support group shall be responsible for providing technical inputs for the Government's Technical policy related issues.
- **Project Management Group:** The Project Management group would be engaged in execution of large departmental and state projects. The group shall also offer Project Assurance services to review and monitor the implementation of projects.

- **Infrastructure Group:** The Infrastructure group shall have a whole of government perspective for the states IT Infrastructure. This approach will be aimed at deriving cost savings for the government through consolidation of requirements. The Nodal Agency can enter into partnerships with private parties to run the facilities and shall play a key role in the design and monitoring of the infrastructure setup.
- **Consulting Group:** The Consulting group would provide direction to the e-Governance initiatives of the various departments with the aim of integration and creation of inter-operable solutions. The outsourcing advisory sub-service line should focus on structuring PPP and outsourcing deals for various state departments. The BPR and change management wing should focus on re-engineering departmental processes as per the requirements of e-enabling them and should also be responsible for handling the change management process that would accompany such re-engineering.
- **Procurement:** The group would be responsible for all e-Procurement related services in the State of Delhi.

Primary Functions of the State Nodal Agency would be:

- Act as the autonomous e-Government Management body in the state and provide:
 - e-Governance direction for the state
 - Design Policies and formulate IT standards
 - Supervision and monitoring of e-Governance projects / initiatives
 - Support Government Business process re-engineering
 - Provide technical inputs in various Information technology domains like networking, security, application, hardware etc.
- Responsible for initiating and implementing capacity building for implementing and sustaining the e-Governance programmes
- Provide services like selections, contracting of external agencies/persons/services and administrative support to SeMT
- Coordinate with Training Institution(s) to impart training to state government department employees
- Maintain a repository of IT trained department employees and the levels of training undergone by them
- **Technical Evaluation Group (TEG)** would invite the experts from the field of information technology and e-Governance to examine all the technical proposals that are to be considered by SeMT

Primary Functions of TEG would be:

- Provide technical guidance to PeMT
- Assist SeMT in technology approval by examining the technical proposals
- Identify leading practices, consider latest trends of technology and suggest the best suited choice of technology to PeMT
- **Project e-Governance Mission Team (PeMT)** would be constituted at the departmental level and would manage project execution and would manage implementation with regard to technology, process and change management.

Primary Functions would be:

- Responsible for initiating, implementing and sustaining the e-Governance programmes at the Department level.
- Oversee the execution of the departmental e-Governance projects
- Manage outsourcing tasks like
 - Preparation of Project Proposals
 - Consulting assignments for BPR, Change Management, Financial Modeling, System Design & Architecture etc
 - Project Management / Monitoring

- Training
- Procurement of Hardware and Software
- Take advice & support from SeMT, Technical Evaluation Group and State Nodal Agency on specific project related issues

11.2. Policy/ Legal Framework

Governments worldwide have been making efforts for over two decades to use technology as an instrument of change to provide better services to citizens, facilitate business, and provide better governance and transparency. The investments in e-Governance tend to produce sub-optimal results in the absence of standards. It is therefore critical to lay down suitable policies, guidelines and specifications in the above areas to facilitate faster proliferation of e-Governance applications.

Further, with multiple players and agencies increasingly becoming involved in the e-Governance initiatives, standards for e-Governance in India have become an urgent imperative. In the absence of such standards, difficulties will be encountered in usage of ICT systems when different organizations have to interoperate.

As setting up Standards and Policies and their maintenance are an ongoing concern, it is important to establish an Institutional Mechanism to evolve them and put in place a process for adopting and maintaining them. Building standards for ICT systems is a collaborative and consultative process and connotes consensus.

Recognizing the critical role that well-designed standards play in the rapid growth of e-Governance in the country, the Department of Information Technology (DIT) has constituted a Core group on Standards for e-Governance to recommend at a National level on:

- Broad areas in which standards need to be developed in e-Governance
- An Initial set of standards
- Processes required for a phased adoption of standards
- Creation of an Institutional Mechanism to evolve and maintain standards

Considerable efforts have been put in by the group members in evolving the priority areas, processes and the Institutional mechanism. Almost every state now has an IT policy and the IT Act was released in 2000. Certain other standards and guidelines like PKI, Citizen Service Centers, SWAN, etc have already been made available to the States.

NIC also comes up with certain standards to be used while implementing that technology. Govt. of NCT of Delhi already has an IT policy constituted in 2000, to promote the investments of the Information Technology industry and investments in e-Governance in the State. The Policy seeks to:

- Remove information asymmetry among people
- Improve citizen services at all levels of governance
- Promote IT investments in the state
- Develop human resources for, and through, IT
- Promote use of Hindi applications and resources in IT

The strategic steps for achieving the above objectives are as follows:

- Creating an enabling environment and niche marketing
- Promotion of Infra structure, Industry and Investments
- Promotion of IT in Government
- Promoting IT in the Social Sector
- Manpower Development for IT

No other formal policy e.g. Security policy, Front-end, Back, Middleware policies directly related to e-Governance exists in the State. Adoption of these common standards, policies and procedures facilitates:

- Uniform Interaction and Implementation
- Reduced Costs to Develop & Deploy solutions
- Effective Communication between Government, Businesses and Citizens

- Easy Interconnection of disparate applications with-in the department
- Interconnect Government Departments
- Reusability of Elements
- Processes, Designs patterns and Technology components

The application of ICT to government may encounter legal or policy barriers. Legislatures must ensure the laws are updated to recognize electronic documents and transactions. They must take proactive steps to ensure that policies support rather than impede eGovernment.

Policymakers implementing eGovernment must consider the impact of law and public policy. Otherwise, any initiative will encounter significant problems. The effort must incorporate a holistic view, one that is not just focused on technology. Archaic laws, old regulatory regimes, overlapping and conflicting authorities can all greatly complicate or altogether halt a project. Legal reforms and new policy directives may have to be adopted before the online world.

In the implementation and operation of various e-Governance programs, the following areas are identified which might involve any form of legal intervention. The government has to be well equipped with policies, guidelines to be able to prevent any harm to the e-Governance project:

S.No.	Possible area of legal intervention	Details
1	Security Compromise/ Breach of computer systems security	The Government should well protect its systems and its image through clearly articulating the repercussions of an attempted security attack on the State Government systems. Legal action is one such way to contact and eventually avoid such disturbing activities. The source of such nefarious activities could be both internal and external.
2	IPR Violation/ Patent Protection	Various forms of intellectual property may be created both intentionally and unintentionally while undertaking an exercise of such extent. The government should have a formal mechanism of identifying potential intellectual property.
3	PPP Contract terms Violation	<p>While negotiating a PPP contract, the government should ensure that the contract terms are laid out in detail to avoid complications once the project is in operational mode. If the government has not undertaken a PPP exercise in the past then a possible review of the contract by an independent agency is advisable.</p> <p>The contract should be such that it motivates both parties to focus on service delivery. Well defined exit clauses should be framed and the minimum length of contract should be deliberated keeping in mind the long-term success of the e-Governance project.</p> <p>At the end of the partnership, the PPP contract should also transfer the rights of the developed application to the state government.</p>

4	Non-compliance with National Policies for PKI, Encryption, eSecurity, etc	Any project that is being designed should keep in mind various national level acts, rules and policies concerning the same. Any non-compliance to National level policies can trigger a possible legal action.
5	Office space contracts, Employee Contracts	Failing to comply with various building, office space contracts and norms can also lead to a potential legal action. Also, project champions in the institutional framework need to have a minimum serving period at the time of their recruitment.
6	Cyber Laws/ Production, use and spread of detrimental electronic computer programs	Any government service that would be provided online should have detailed terms and conditions to avoid malicious attack and misuse of Government systems from both internal and external sources. Any potential breach could lead to potential action.
7	Data Confidentiality	Government data should be classified into various levels and employees, partners and suppliers should be educated to maintain and comply with such confidentiality standards.
8	Digital certification of documents	Digital certificates should be considered as an equivalent to a physically signed document. The non-repudiation feature ensures that the signed document contains internationally accepted form of electronic signature.
9	Violation of Operating Rules of Computer/ Systems/ Networks or Service Level Agreements (SLAs)	Any failure in following State/ National Operating Rules or delivering against defined Service Level Agreements (SLAs) can lead to a potential legal action against the concerned entity.

Table 4: Legal Framework

11.3. Government Process Re-engineering (GPR) Framework

Process is a systematic flow of goods, services or idea from a designated source to a designated destination with a common and stated objective. A process runs on a structure and any flaw or a lacuna in the process adversely affects the outcome of the given process. As most of the government services are based on a welfare motive than on a profit motive, at times there is non-adherence to proper checks and balances leading to deterioration in the service levels.

On the basis of our study in NCT of Delhi, though a lot of government services have a further scope of improvement, there are few areas where before applying newer systems and practices the current processes need to be re-engineered.

Here reengineering could mean making necessary changes in the current structure, policies, service level agreements, or any other practices to match the application with the dynamic and changed environment and expectations.

The following are the areas of improvement in case of NCT of Delhi where processes require re-engineering:

- Human Resource
- Service Delivery
- File/ Document Approval and Management
- Legislative Rules and Bylaws
- Procurement, Inventory and Distribution

Human Resources

(Recruitment, Promotions, Transfers and Postings, Performance based 'compensation')

Currently the state follows a structured policy for recruitment promotions, transfers and posting. For promotions and transfers, the set policies of performance based promotions/transfer might not be strictly adhered to thereby affecting the morale of sincere employees.

The current training and salary structures do not encourage efficiency and improved skill sets, also the HR databases are not adequately systemized in all departments so as to answer satisfactorily employees' grievances, their request for scheduling, transfers etc. The department of Education and PWD has a robust Personnel Management System, which can be effectively replicated across other departments

Service Delivery

(SLA-Adherence to Citizen Charter, Scheme Monitoring, and Grievance Redressal)

The current service delivery mechanism of the government is in-effective as the service level agreements (SLA) through citizen charter are not followed properly, there are unnecessary delays in discharging the service to the citizens, the service quality is poor, and there exist rampant cases of use of secondary or illicit channels to avail the services.

The grievance redressal mechanism is also being updated. However this system needs to be more robust with escalation matrix built into the system to ensure timely and qualitative grievance resolution.

File/Document Approval and Management

(Storage, Tracking and Retrieval)

The procedure followed in file tracking system and approval in the government is a serious bane to effective administration, as there is a lot of paper work and unnecessary requirement of approvals passing through different levels.

Also, as the file management system is not effective, there is an insistence on creation of separate files for every matter/issue no matter how trivial. Even though the file movement across various levels is being tracked by file monitoring system in the departments, there is still scope of further sprucing up the system through options like e-files.

Legislative Rules and Bylaws

(Rules, Acts and Policies)

The existing legal framework though very comprehensive, may be restrictive at times for growth in many areas like IT, e-Governance etc. Since these areas have taken shape only recently, there is a need to adapt the laws accordingly. For example the laws till late did not support e-Payment and digital signature as legally binding, also many other restrictive practices like stringent labor laws restrict the faster economic growth of state.

Procurement, Inventory and Distribution

Procurement and inventory must be done through a common application in all the departments in the government, whether related to infrastructure, welfare or any other.

In those departments where material flow is high, procurement and inventory management is a very key issue and a systemized approach to its tracking is required. Currently, though the rules set for these areas are quite robust and comprehensive its implementation is tardy and needs to be improved.

The various benefits of e-Governance to the government and other stakeholders are shown in the table below:

S.No.	Stakeholder	Economical Benefits
1	Government	<ul style="list-style-type: none"> ▪ Better utilization of the manpower of the state increases state domestic product ▪ More revenue earned due to increased usage of government services over private services e.g. government hospitals, institutions, etc ▪ Better utilization of welfare rupee due to better general administration ▪ Increased transparency and reduced bureaucracy leads to more financial investments, donations in the state ▪ Increased collections due to automatically monitored transactions e.g. commercial tax, octroi, etc ▪ Lesser salary costs due to automatic and accurate transfer of information and lesser need of reconciliation ▪ Lesser cost of delivery of service as that is borne by the PPP partner at a more reasonable price
2	Citizens	<ul style="list-style-type: none"> ▪ Reduced cost incurred in accessing government services e.g. traveling, lodging, and boarding, etc ▪ Higher value for money spent on government services as quality of service delivered improves and grievance gets redressed e.g. Public Distribution system, etc ▪ Savings on money spent on illicit channels to receive government services e.g. touts, etc ▪ Ensured supply of services under government schemes avoids personal expenditure
3	Businesses	<ul style="list-style-type: none"> ▪ Better employee productivity due to less time spent in government offices ▪ Better yield and profitability due to improved quality of government services and infrastructure e.g. roads, power, electricity, etc ▪ Reduced cost in transacting with the government due to transparent operation and no need of a middleman ▪ Transparent access to market and information reduces dependency on middlemen and hence savings on indirect costs
4	Employees	<ul style="list-style-type: none"> ▪ Better evaluation and fair HR practices leading to improvement in skill sets and commensurate career growth ▪ Proper payroll accounting practices leading to timely payment of salary and other dues ▪ Less paperwork and less transactional errors will lead to better performance leading to enhanced career growth

Table 5: Government Process Re-engineering– Economical benefits to Stakeholders

11.4. Funding Framework

Correct funding of an e-Governance project is one of the most vital aspects for their successful sustainability; especially in India where deficit financing is ultimately the most adopted funding methods for government projects it is very important to pre-decide where the funding would come from during the implementation and operation of the project

The funding required for the project depends on the cyclical project phases through which the project passes. These phases are typically Concept, Design, Implement, Operate and Innovate. These stages are characterized by various typical attributes like different cost features, components and possible sources of financing.

In any e-Governance project a systematic approach to funding should be followed once it's rolled out so that funding is not entirely dependent on the project champion's recommendation and state's coffers, but it should be able to generate revenues on its own.

Various possible sources of revenue for such a project could be through user charges per transaction, bulk usage charges, licensing charges etc. Different business models like self operation and variations of PPP (BOOT, BOLT etc.) are possible which can be adopted in discharging different services.

For example typically for a service like 'certificate generation' which is a less setup & operation cost, less expertise, and higher transactions based, a PPP model is suitable wherein more smaller entrepreneurs are able to take it up successfully.

During the project development phase, the funds could come from the central or state government, private partners, donors, revenue through business operation etc. depending on the nature of the project, but the emphasis should be to make the project self finance its costs, if not all then at least the operation costs.

Some of the Public Private financing structures that could be considered by the State Government include:

S.No.	PPP Model
1	Build-Own-Operate-Transfer (BOOT): The service provider is responsible for design and construction, finance, operations, maintenance and commercial risks associated with the project. It owns the project throughout the concession period. The asset is transferred back to the government at the end of the term, often at no cost.
2	Build-Own-Operate (BOO): Operates similarly to a BOOT project, except that the private sector owns the facility in perpetuity. The developer may be subject to regulatory constraints on operations and, in some cases, pricing. The long term right to operate the facility provides the developer with significant financial incentive for the capital investment in the facility
3	Build-Own-Transfer (BOT): Operates similarly to a BOOT project, except that the private sector does not operate the facility after building the same
4	Build-Own-Maintain (BOM): Involves the private sector developer building, owning and maintaining a facility. The Government leases the facility and operates it using public sector staff.

Table 6: Public-Private Partnership Models

11.5. Prioritization Framework

Any state or an agency is a mix of various dynamics and constraints like economic, political, technological and social constraint. Any initiative that has to be rolled out should be tailored keeping in mind the same.

In Delhi, looking at the current state of affairs there is scope of improving service delivery using e-Governance across various sectors like health, education and most importantly general administration. If leading practices in each of the domains are followed then it could drastically improve the economy, standard of living, etc. for the state. But it is neither possible nor advisable to take up all such projects, looking at the massive initial financial burden that a project will entail on the state's exchequer and the drastic consequence that a failed e-Governance project could have on the state's current framework and systems.

Therefore, the various e-Governance projects should be filtered through a stringent prioritization framework which is strictly tailored according to state's unique features. The framework should be able to provide clear answer to the following question for each of the considered projects.

To help state Government prioritize the projects, a prioritization framework has been designed keeping in mind the various major constraints the state of Delhi faces; any suggestions made to the state therefore should be as closely aligned with them as possible.

Political constraints/issues: The suggested project should be in consonance with the state's vision, national vision, state and national IT policy. A similar project should have been successful elsewhere in a similar situation to gain confidence from the policy making bodies. Also it should not be too taxing on the state's funds looking at the federal nature of business in India. And lastly it should not hurt sentiments or stir controversy with regards to any of the stakeholders.

Social issues: Such a project should be more favorably adopted by the state which reaches greater number and more diverse masses, is in line with the current social indicators of the state like literacy levels etc., is more critical to the citizen's needs, and increases the satisfaction of the stakeholders or ultimate beneficiaries on counts of quicker, cheaper and quality services.

Technological/ Infrastructure issues: A project should be in line with the state's IT and physical infrastructure i.e. it should not necessarily require a lot of improvement in these given factors, the project should rather be worked around these inadequacies. Also a project which is compatible with the current IT standards and interoperability is more likely to be adopted and be successful.

Economic issues: While considering a project for implementation whether for profit or for welfare motive, it is very important to consider its economic costs, these costs can be on many counts like training, Implementation and Migration, Maintenance, Monitoring, Project Management, Consultancy, Training, Research and Design, Re-engineering (GPR), Hardware/ Software. Other economical issues such as possible sources of revenue, its frequency and quantum will influence the priority given to the project. The PPP model applicable for a project whether BOLTS, BOO or BOOT is also an important consideration. For example, an employee exchange registration program where a PPP partner builds, operates and manages it successfully will be higher on priority for adoption.

The above parameters should be considered while prioritizing between various initiatives and a graphical representation of Criticality vs. Feasibility can help us select the most critical projects out of the possible initiatives.

The four quadrants can be inferred as follows for the purpose of categorizing the projects:

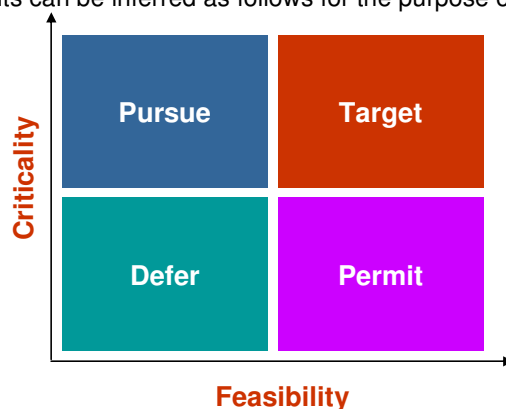


Figure 13: Feasibility Vs Criticality Matrix for Prioritization of e-Governance Projects

- **Target:** Projects that would form part of the roadmap as priority projects as they have high criticality and high feasibility. They are urgently required by all the majority of the stakeholders of the state and should be implemented immediately.
- **Pursue:** Project that have high criticality but low feasibility and should be allowed to be launched but under high scrutiny as the possible risks attached with the projects could be significant for which mitigation strategies have to be formulated before implementing. These projects if implemented correctly would provide high benefits.
- **Defer:** Projects that can be put on hold and hold less priority as compared to the targeted or pursued projects. They are non critical and non feasible providing very less benefits and pose high risks towards their success.
- **Permit:** These Projects are identified as quick wins but have less impact on the stakeholders. These projects can be implemented to build early confidence in the e-Governance program.

The parameters to judge criticality and feasibility are as follows:

Criticality

- Agreement with the development goals of the sector based on sectoral analysis
- Will of the political and bureaucratic heads towards e-Governance judged from the responses submitted as part of the study
- Agreement with the requirements of the stakeholders/ citizens from the citizen surveys
- Economical benefits to the citizens and the state / Potential source of revenue for the state from the revenue model of the project
- Positive visibility of the government to the external world

Feasibility

- Departmental / Sectoral e-Readiness judged from the Sectoral e-Readiness analysis conducted from the submitted questionnaires by the departments
- Cost of development/ implementation of the solution from Interoperability/ Reusability with existing applications from the Sectoral e-Readiness analysis
- Is the market ready to accept the solution judged from the profile of the stakeholders?

12. Sectoral Strategies

It has been observed that a sectoral approach rather than a departmental approach towards e-Governance is more relevant in achieving the eGovernment vision of the state and helps in building the right Governance solutions, applications and initiatives for the state. A sectoral approach helps in aligning various departments towards a single window system model of delivery of services and provides a more integrated view of the state government. The following diagram shows the various sectors identified for analysis for the state of NCT of Delhi.

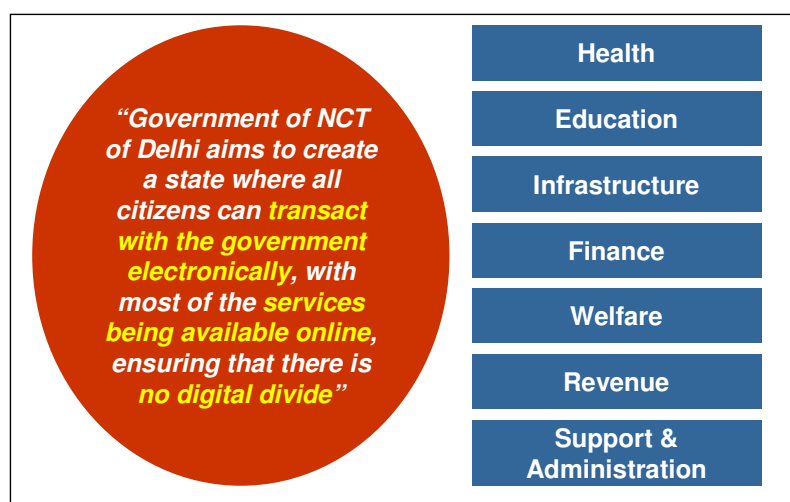


Figure 14: Sector description aligned with e-Governance vision

Various parameters were considered to perform the sectoral segmentation including state developmental vision and goals / agenda, priorities, current party manifesto, e-Governance Vision, state budgetary allocation, and a common pattern of functions performed by the existing departments of the state. The prioritized departments of the state were grouped into one of the above sectors. The grouping was performed through a brief understanding of the core departmental processes and the role the department plays in the development of the sector and the services it provides to the various stakeholders. The categorization of the departments in various sectors is as follows:

S.No.	Sector	Departments
1	Health	1. Health and Family Welfare 2. Drug Control
2	Education	3. Education
3	Infrastructure	4. Irrigation and Flood Control 5. Land and Building 6. Public Works Department 7. Tourism 8. Transport 9. Urban Development
4	Finance	10. Audit 11. Finance 12. PAO 13. Planning
5	Welfare	14. Employment 15. Food and Supplies 16. Labour 17. Registrar Cooperative Societies 18. Social Welfare
6	Revenue	19. Excise Entertainment and Luxury Tax 20. Trades and Taxes

S.No.	Sector	Departments
7	Support & Administration	21. District Administration
		22. Administrative Reforms
		23. UTCS
		24. Information Technology

Table 7: Sectoral categorization of the departments

Support & administration along with Information Technology department is an enabling sector, performing various administrative functions and forms the foundation of efficient administration thereby defining the environment in which other sectors exists. An efficient support & administration department is conducive for the development of other sectors.

The Department of Information Technology has been kept out of the sectoral segmentation as it plays an important role in e-enabling all departmental functions and central to the functioning of the government from the point of view of e-Governance. Most of the core and common application for the state would cater to the functions of the Support & Administration sector.

Before recommending the e-Governance initiatives for the state it was critical to take stock of the current level of e-readiness of the state. For this, a dipstick study of the prioritized departments was conducted using a structured Questionnaire followed by a meeting with the Nodal IT Officers of each of the departments.

The e-Readiness survey was done on parameters like current level of computerization and automation, level of usage of ICT for service delivery across G2C, G2G, G2B and G2E segments, number of computers to employee ratio, budgetary expenditure on Information Technology etc. Based on the analysis the departments were classified under four categories namely Leader, Aspiring Leader, Expectant and Average Achiever. The final classification of the departments was as follows:



Figure 15: Classification of prioritized Departments

**Note: Departments in italics represent the State Mission Mode projects*

Each of the prioritized department was further studied in detail in alignment to the sectoral priorities to identify the possible role of e-Governance in each of the departments. The details of each of the departments are provided in the section below.

12.1. Health

The Health sector is the most important sector in terms of the development agenda of the state; it is an important indicator of well being of the State.

This Sector includes programmes for control of Malaria, Hepatitis-B, Dengue and Pulse Polio; control of cancer, leprosy and T.B. control programme, special immunization, various health campaigns etc. It also includes provision for strengthening of PFA, Drug control, Forensic Science Laboratory and establishment of State Drug Authority.

A rapidly increasing population with low hygiene levels and low awareness levels regarding health practices is the challenge that this department is faced with. Healthcare infrastructure needs urgent attention and a low level of automation implies that maintaining citizen health records is a challenge, especially with respect to the elderly population.

Drug abuse is constantly on the rise. Control of drug quality and control of spurious drugs pose an altogether different challenge. This accompanied by the ever present threats - both natural and manmade - imply that the state will be challenged in facing emergencies and disasters. It is in this context that the Department of Health and Drug control become a key focus area for digitization.

The following departments would constitute the Health sector:

- Health and Family Welfare
- Drug Control

Health Department

The Department caters to health and family welfare needs of nearly 130 lakh population of the ever-growing metropolis, and also shares the burden of migratory as well as floating population from neighboring states which constitute nearly 33% of total intake at major hospitals in Delhi. The department plays a significant role and is committed to provide health care facilities to the people of Delhi.

Development Goals and Agenda

The major development goals of the department include:

- Provide primary health care at the door step of general public of National Capital Territory of Delhi through health centers / dispensaries
- To set up new hospitals in peripheral parts of Delhi, so that the bed to population ratio in the peripheral areas of Delhi is made adequate
- Better Bio-Medical Waste Management
- Better Disaster Management
- Provide training to medical and paramedical personnel on the latest development in the field by deputing them to other institutions for various specialized trainings /seminars/conferences/workshops
- Procure drugs centrally required by the hospitals and health centers of Govt. of Delhi and their distribution to these institutions ensuring high quality standards with comparatively low cost
- To improve the level of disaster preparedness in Delhi through suitable strengthening of infrastructure at state and hospitals' levels and coordinate disaster preparedness activities in Delhi
- Provide definitive & timely care to trauma patients in well equipped tertiary level Trauma Centre

Current e-Readiness Status

Hospital Computerization

- G.B.Pant and G.T.B. Hospitals have computerized OPD Registration, Central Admission and Enquiry, Laboratory, Radiology and Medical Record Department (MRD)
- Pharmacy and stores are computerized at G.B. Pant Hospital and a Medical Information Centre (MIC) & Medical Illustration Department (MID) have been established
- OPD Registration is computerized in 14 hospitals with consequent reduction of waiting time

- Letter of Intent issued to C -DAC for development of Hospital Management Information System (HIMS) for Delhi Govt. hospitals

Computerization of blood banks

- Three regional blood banks of State Blood Transfusion Council viz. Lok Nayak Hospital, Deen Dayal Hospital and G.T.B. Hospitals are computerized and linked with each other. The availability of blood and its products is available on the web and donors can register themselves through the web

Computerization of Directorate of Health Services

- Various branches of the Directorate are computerized and connected through a LAN. The offices of Chief District Medical Officers are linked with the Headquarter for exchange of data, reports etc.

Online Services

- Information about medical facilities, specialists available, citizen charter etc. in hospitals under Govt. of NCT of Delhi
- Application forms about registration of nursing homes, list of registered nursing homes etc.
- Complaints and public grievances
- Tenders and Notices

Health Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1	Health and Family welfare awareness for citizens	G2C	– Lack of awareness of rights and the existing facilities/ schemes of the Government	<ul style="list-style-type: none"> – Health Portal and Call Center ** To effectively convey various health and family welfare schemes to the citizens – Voice enabled health kiosks at Hospitals/Dispensaries to act as a support system to respond to basic queries regarding ailments to citizens – Digital sign and animation boards used for effective information dissemination regarding the Hospital/dispensary (E.g. Number of vacant beds available, Doctors on Duty etc.) – Tele-medicine ** Provide health services to citizens through installation of telemedicine compatible diagnostic medical equipments 	<p>High</p> <p>Low</p> <p>High</p> <p>Low</p>	<p>High</p> <p>Low</p> <p>High</p> <p>Low</p>
2	Training of healthcare delivery staff & personnel	G2E	– Inadequate training infrastructure and trained staff	* Refer Note A		

* Note A- Some of the challenges faced by the Department requires policy/infrastructure changes.

** Please refer to "Leading Practices" section to understand the details about the scheme

Health Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
3	Primary and secondary healthcare services – Immunization, Vaccination dosages etc.	G2C	<ul style="list-style-type: none"> – Cumbersome process for availing services and high number of visits by citizens to hospitals / dispensaries to avail health services – High dependency on particular Hospital/Dispensaries due to non-presence of patient medical history across the Hospital/Dispensaries in the state – No process to maintain medical history of patients – Lack of adequate hospital and health care infrastructure in comparison to the state population 	<p>Centralized Hospital Management System** (HMS) Centralized HMS would link all hospitals, clinics and dispensaries across the city making information regarding patients available across locations. HMS would have modules like:</p> <ul style="list-style-type: none"> ▪ Patient Registration & record management ▪ Clinical Laboratory management ▪ Hospital inventory and administration management ▪ Blood Bank management ▪ Personnel management (Doctors, nurses, medical practitioners etc.) ▪ Insurance Management ▪ Stores Management ▪ Scheme monitoring ▪ <i>State health statistics monitoring</i> ▪ <i>Equipment Performance Monitoring system</i> 	High	High
				<p>Citizen health cards** Consolidated information about the citizen with his medical history stored in an electronic secure form. The information would be readily available and used by Doctors across the state</p>	High	Low

* Note A- Some of the challenges faced by the Department requires policy/infrastructure changes.

** Please refer to "Leading Practices" section to understand the details about the scheme

Health Department					
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality Feasibility
			<ul style="list-style-type: none"> Absence of Government policies / norms with respect to minimum level of health care infrastructure to be setup taking into account the population density 	<p>*Refer Note A</p> <p>State Health Monitor**</p> <p>The State Health monitor will provide key facts and figures about the overall statistics to health officials to enable them to make effective Health policies which will create the desired impact in the State.</p> <p>The State Health monitor will facilitate capturing of data from health centers which will include both government as well as private health centers across the State.</p> <p>It will give periodic reports categorized on Hospitals which will include key information like number of births, deaths, number of successful operations etc to health officials.</p> <p>The Health monitor based on the above information would categorize the Hospitals/Dispensaries on performance. This information would be available to citizens through a web interface.</p>	High High
4	Healthcare infrastructure consisting of latest medical equipments, well equipped rooms and other supporting	G2C, G2E	<ul style="list-style-type: none"> Upgradation and maintenance of medical equipments and facilities in Government hospitals and dispensaries 	<ul style="list-style-type: none"> Hospital Management System ** Hospital inventory and administration management (The module should be linked to 	High High

* Note A- Some of the challenges faced by the Department requires policy/infrastructure changes.

** Please refer to "Leading Practices" section to understand the details about the scheme

e-Governance Roadmap for Govt. of NCT of Delhi

53

Health Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
	facilities of government hospitals, clinics and health centers			<p>the common initiative ‘facilities management’ module also)</p> <ul style="list-style-type: none">▪ Equipment Performance monitoring system which would monitor the usage of various health equipments across Hospitals/Dispensaries in the state. This information could then be used for new procurement and servicing/replacement of equipments		
5	Administrative functions e.g. recruitments, transfers and postings, training, attendance, performance monitoring etc.	G2E	<ul style="list-style-type: none">– The current administrative procedures are manual in nature thereby making the processes time consuming– Due to manual system the retrieval of information and MIS reporting time consuming and inefficient	<ul style="list-style-type: none">– Hospital Management System **<ul style="list-style-type: none">▪ Personnel Management System to keep track of the various activities like recruitment, transfers and postings, training, attendance, performance monitoring of the hospital staff. (The same information should be linked to the common initiative of Personnel information Management System)	High	High
6	Procurement and inventory management of drugs and medical equipment	G2E	<ul style="list-style-type: none">– Lack of automation in Procurement making the process time consuming and cumbersome– Stock-outs and longer lead times in Procurement due to non-availability of real time Inventory status to proactively place procurement order	<ul style="list-style-type: none">– Hospital Management System **<ul style="list-style-type: none">▪ Stores Management system	High	High

* Note A- Some of the challenges faced by the Department requires policy/infrastructure changes.

** Please refer to "Leading Practices" section to understand the details about the scheme

Health Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
7	Collaboration with NGOs that participate in various healthcare service deliveries to enhance the reach of services provided	G2N	<ul style="list-style-type: none">Inadequate exchange of information about the work done by both department and NGO leading to duplication of work and increased spending of funds on similar initiatives by different agencies	<ul style="list-style-type: none">Health Network to link the services provided by various NGOs thereby helping department to provide equitable distribution of services	High	Low
8	Collaboration with the Insurance companies to process claims and provide beneficial schemes	G2B	<ul style="list-style-type: none">Cumbersome processes to claim insuranceNon-customized schemes as per the requirement of the citizens	<ul style="list-style-type: none">Setting up of Hospital-Insurance Network which would expose the health information to the Insurance companies leading to a faster resolution of claimsConsolidation of databases of insurance companies and linkage to hospitals for rationalizing and simplifying the process for insurance claimCollaborating with insurance companies / NGOs providing insurance to provide comprehensive insurance schemes to the citizens	High	High
9	Blood Bank services	G2C	<ul style="list-style-type: none">Crucial information regarding the availability of blood across all the blood banks is not available on real-time basis	<ul style="list-style-type: none">Linking regional blood banks in the city to the existing web-link of blood banks and with the hospitals to provide real-time blood availability status. The information regarding the availability of blood could be made online	High	High

* Note A- Some of the challenges faced by the Department requires policy/infrastructure changes.

**** Please refer to "Leading Practices" section to understand the details about the scheme**

e-Governance Roadmap for Govt. of NCT of Delhi

55

Health Department				
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives
10	Emergency/ Epidemic services control and management	G2C	<ul style="list-style-type: none"> - Lack of robust system and processes to encounter and deliver emergency medical services to citizens in minimum turnaround time - In-adequate preparedness and readiness to handle and manage emergencies during disaster 	<p>Emergency Monitoring and Disaster Recovery system Integration between the state-wide Personnel Management System with the Hospital Management System to provide key information with respect to availability of emergency medical services (E.g. Information relating to doctors/specialist, status of availability of the beds across Hospitals and availability of blood etc.) on a real time basis to the decision makers and disaster management team.</p> <p>GPS based tracking and provision of radio frequency communication equipments for ambulances</p>
				<p>Criticality High</p> <p>Feasibility High</p>
				<p>Criticality High</p> <p>Feasibility Low</p>

* Note A- Some of the challenges faced by the Department requires policy/infrastructure changes.

** Please refer to "Leading Practices" section to understand the details about the scheme

Health Department Leading practices

Leading Practices

Hospital management system

Hospital Management System (As part of Health Portal Application) (Chattisgarh)

Objectives – To improve the quality of healthcare in government hospitals at the district and block level, and to provide insights on epidemics and disease patterns; to improve referral linkages.

At present the quality of care, maintenance of facilities and equipment, logistics of supplies and accounting require major improvement, and they suffer from a lack of information support systems. Furthermore, there is a lack of good quality information to provide epidemiological insights, and management of referral linkages.

Scope:

- Patient Records, care tracking; referrals management; patient care review
- Disease incidence monitoring and analysis;
- Patient-facing services
- **Management of hospital resources including materials, essential drugs supplies.**
- Facilities and equipment maintenance, finance, and personnel.
- Reviews of hospital management performance
- . MIS reporting module, integration with Public Health MIS application.

Beneficiaries

Reach – All district hospitals (15) in the first phase. At each location, a Local Area Network with one server and about 10 PC/nodes, printers, UPS, etc would be required. Connectivity to District CMHO's Office would also be required. The system can be implemented at Community Health Centers / Civil Hospitals (116) as well, in subsequent phases.

Implementation- This project has been initiated as a customized development, to be implemented as a pilot in one district hospital.

Points for consideration- Consider packages readily available for best practices; explore availability of hospital ERP software products.

Hospital Rating

Internationally hospital rating agencies like subimo.com, healthgrades.com etc provide ratings of hospitals by comparing health-care providers based on criteria such as complication rates, mortality rates, facilities available, cost and availability of the latest technology. These sites' emergence reflects increasing involvement by patients and their families in decisions about their health. Most people used to pick hospitals based simply on where their

Health Department Leading practices

doctors practiced. But the wider availability of data on complication and infection rates, new technology, and other key factors has made it possible for patients to make smarter choices. According to a survey by Solucient, a health-care data services company, 26% of adult consumers say they're "very likely" to use data on hospital quality. Two-thirds say they would switch hospitals over their doctor's objections to go to an excellent facility or avoid a below-average one.

Usage of equipments in Hospitals

A well advanced hospital management system does keep a track of the usage of all the biomedical instruments and give an overall report about the utilization of machines. Accordingly, the instruments can be transferred from one place to another depending on where they are required the most.

Health Infrastructure management system

Consolidated Web Based System for managing the complete Healthcare Infrastructure, including District Hospitals, Sub-Divisional Hospitals, Special Hospitals, CHCs, Block PHCs, Mobile Health Units, Area Hospitals, ANM Centers and Ayurvedic, Homoeopathy & Unani Dispensaries. This system could have a number of sub-modules such as Hospital Management System, Inventory Management System, Patients Information System, etc.

Health Information system

Consolidated Web Based System for interfacing between various Cadres of Health Department and for storage, management, utilization and dissemination of all data related to Health & Family Welfare Sector. This system would have a comprehensive patient and citizen database and in-built GIS tools for delivery network optimization, and can also be utilized by various External Agencies and citizens.

Scheme Management System

Consolidated Web Based System for effectively managing various Health Related Projects, Family Welfare & Immunization Programs and other schemes across the State via a set of status-based workflow, dynamic collaboration tools and interfaces for various participants, including External Agencies and SMEs

Performance Monitoring system / State Health Monitor

The State Health monitor will provide key facts and figures about the overall health situation to health officials to enable them to make effective Health policies which will create the desired impact in the State. The State Health monitor will facilitate capturing of data from health centers which will include both government as well as private health centers across the State and give periodic reports which will include key Human Development indicators like Infant Mortality Rate, Birth rate, Death rate etc to health officials. Private practitioners and hospitals will be able to fill in information through web based interface

Telemedicine

Provide medical diagnostic services to patients in rural areas at nominal rates or free. The strategy is to install telemedicine compatible diagnostic medical equipment such as CT scan, Ultra Sound Scanner, Colour Doppler, ECG etc. and appoint operating agencies who will install antennae, sensors, etc. at the district hospital through their own resources and provide services at the rates fixed by government.

Health Department Leading practices

Citizen Health Cards

The citizen health cards are an important step in consolidating data about the health status of the citizens of the State. The citizen health card carries basic information about the holder and will be used by the hospitals to check health details and past case history about the citizen. The citizen health card will be used to avail various services at the hospital and will ease operational hurdles like paying of bills, admission of patient, discharge formalities etc.

Health Portal

A web portal to disseminate health education and awareness through CICs

International Case studies

ITALY - Single Regional Centre for Health Services Booking

The Single Regional Centre for Health Services Booking (RECUP) is a single centralized system for booking health services through multi-user software. It involves the whole regional health structure, that is, both public and private health structures that provide specialized services as well as those operating within the National Health Service.

RECUP provides the following:

- A centralized database offering a comprehensive overview of the booking data;
- An Informative Panel of statistical data in order to assess the effectiveness of the provision of services;
- An information technology and organizational solution to reduce double or multiple bookings; and
- An effective booking system for those services considered a priority according to general practitioners.

United States of America - iHealth Record

iHealthRecord, an online health information resource launched in 2005, has great potential in terms of efficiency in case of emergency or simply when changing general practitioners. The new system allows patients to see, change and share medical records on the Internet through a service launched by a company set up by a coalition of professional medical groups.

Drug Control Department

The Drugs Control Department of Delhi State is enforcing the provisions of following statutes, enacted by Government of India:

- Drugs & Cosmetics Act, 1940 and Rules made there under
- Drugs & Magic Remedies (Objectionable Advertisements) Act, 1954
- Drugs (**Prices Control**) Order, 1995

Main activities of the Department in brief are as under: -

- Inspection for grant / renewal of licenses for the manufacture of allopathic drugs including whole human blood / blood components / Blood products, surgical dressings, diagnostic reagents/ Kits, disposable syringes/needles/perfusion sets, repacking of drugs, homoeopathic medicines and cosmetics
- Inspection for grant / renewal of licenses for retail and wholesale of drugs including homoeopathic medicines. No license for sale of Ayurvedic /Unani / siddha medicines and cosmetics is required
- Collection of samples of drugs & cosmetics from mfg. / sale premises for test / analysis to check their quality being manufactured and sold in Delhi
- Inspections and raids with a view to detect offences under the Act specially movement and sale of spurious drugs/ cosmetics
- Investigations of cases of contraventions under the Act
- Inspections of the premises licensed for manufacture and sale of drugs, with a view to ensure that conditions of the licenses are complied with
- Launching of prosecutions against persons / firms found contravening the provisions of the Act

Development Goals and Agenda

Given the rapid growth of population of the country, a mass production and efficient distribution of the drugs would form an important part of the health care system. In this regard, it is proposed that the production of high quality drugs at the end of 10th Five Year Plan will be of the order of 20,000 crores.

The major development goals of the department include:

- To strengthen the existing Drugs Control department including Drug Testing Laboratory which has been transferred from the PFA Department of Delhi Government
- To make the working of the department district-wise
- Quality control of drugs, homeopathic medicines and cosmetics being manufactured and distributed in the NCT of Delhi
- The Drugs Control department enforces the provisions of the following legislations:
Drugs and Magic Remedies (Objectionable Advertisements) Act and rules made there under

Current e-Readiness Status

The department is currently networked and the department has appointed NIC to conduct a feasibility study for computerization and implementation of an integrated application for the department. This project is in the SRS stage.

e-Governance Roadmap for Govt. of NCT of Delhi

60

Drug Control Department				
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives
1.	Issue/renewal and control of licenses for drugs/ and medical equipment manufacturers, pharmacist etc.	G2B	<ul style="list-style-type: none"> Cumbersome process for issue of manufacturing and sales licenses. Further in the absence of any computerized information on pharmacists, licensees, defaulters, sample test reports etc., the process of granting licenses becomes tedious and complex 	<p>Licensing management system**</p> <p>Comprehensive application to keep a track of information with respect to all manufacturers of drugs, medical equipment and pharmacists. This system should then be used for issuing and renewing manufacturing / sales licenses. The application would further have modules catering to:</p> <ul style="list-style-type: none"> MIS on cases of minor violations of drug & cosmetic control Act. This module will also help the department plan for future course of action in cases of repeated or similar violations MIS on sample of various categories of drugs from different locations taken for testing Management & inventory control systems for the stores File monitoring system for the office of Drug Controller of Delhi
				<p>Criticality High</p> <p>Feasibility High</p>

** Please refer to "Leading Practices" section to understand the details about the scheme

e-Governance Roadmap for Govt. of NCT of Delhi

61

Drug Control Department					
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality Feasibility
2.	Investigations of cases filed against non-compliance and other violations	G2C, G2B	<ul style="list-style-type: none"> Lack of adequate processes to maintain, track and audit trail of violations committed by a particular manufacturer/pharmacist 	<ul style="list-style-type: none"> Licensing management system** Comprehensive application to keep a track of information with respect to all manufacturers of drugs, medical equipment and pharmacists. This application would track all violations/non-compliance committed by the establishment till date 	High High
			<ul style="list-style-type: none"> No computerized public enquiry system to keep track of the status of various public complaints received in the department 	<ul style="list-style-type: none"> Grievance Redressal System Monitoring of public complaints and generation of computerized acknowledgements for the enforcement branch. (This initiative is a part of the common initiative across all state departments) 	High High
			<ul style="list-style-type: none"> Monitoring of court cases is difficult under the present manual system 	<ul style="list-style-type: none"> Court Case Management System (This initiative is a part of the common initiative across all state departments) 	High High

** Please refer to "Leading Practices" section to understand the details about the scheme

e-Governance Roadmap for Govt. of NCT of Delhi

62

Drug Control Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
3.	Increasing awareness amongst citizens and medical shops regarding regulatory compliance	G2C	<div><div>-</div><div>Accessibility of information</div><div>-</div><div>Proactive dissemination of information</div></div>	<div><div>-</div><div>Comprehensive website with information including Guidelines, procedures, stipulation and license policy of the Drug Control department to be published on the website.</div><div>-</div><div>Information dissemination through other communication mediums like telephone, print, radio and television</div></div>	Low	High

** Please refer to "Leading Practices" section to understand the details about the scheme

Drug Control Department Leading practices	
Leading Practices	<p><u>Drug Licensing management system</u> Consolidated Web Based System for automating the processes of drug quality verification, controlling spurious drugs and management of licenses for various drugs, including Indian Systems of Medicine and Homoeopathy drugs</p> <p><u>Supply Chain Management System</u> Consolidated Web Based Supply Chain Management System for automating various processes pertaining to storage and distribution of various Medicines and other Consumables related to different Schemes such as Immunization Program, etc. Appropriate interfaces should be provided for external Agencies and suppliers</p>

12.2. Education

Education holds the key to economic growth, social transformation, modernization and national integration. Pre-primary and primary level education is looked after by local bodies whereas middle, secondary and senior secondary education is the responsibility of Directorate of Education, Government of Delhi.

In a rapidly expanding world of knowledge powered by internet, creating a modern curriculum to ensure that the digital divide does not impact the new generation is the main challenge. The schools in the state need to modernize and expand capacities rapidly. New training institutes need to be established to ensure availability of competent teachers and computer facilities are to be developed in schools as an urgent requirement. Drop out rates are high for both students and teachers. Vocational training still needs to reach out to more students. Incentives like better compensation structures are required to ensure that more youngsters take up teaching as a profession. These are some of the challenges which set the context for e-enabling the state's education department.

Some of the major schemes under the 10th Five Year Plan are free supply of text books, additional schooling facilities and introduction of Computer Science at +2 Stages.

The scope of study of this project included a detailed study of the Directorate of Education. The details of the same are as follows:

Directorate of Education

The primary objective of this directorate is formulation and implementation of policies, programmes, laws and regulation for the development of school education across the State. The directorate also manages various Government schools and actively collaborates with various external agencies for upliftment of overall education standards.

Development Goals and Agenda

- The main emphasis is to make education a vehicle to enhance the capabilities of the young generation of Delhi with special emphasis on mass-literacy, non-formal education, improvement of quality of education, vocational education and provision of proper elementary education for all children in age group of 6 to 14 years
- Implementation of Delhi Govt.'s Bhagidari Scheme which envisages Govt. & community partnership in the governance. Delhi Government has also decided to constitute visitors councils for schools, representing local RWAs, PTAs, NGOs etc. with a view to bring about academic, administrative and infrastructural improvements in the schools under the Bhagidari Scheme
- Provision of educational facilities to every child and improvement in the overall quality of education
- Universalization of elementary education through various welfare schemes/ initiatives to attract every child to the school system, encourage retention and check drop-outs in schools
- Achievement of the target of total literacy with special stress on the education of the deprived groups such as women, rural people and socially and economically backward students of the society

Current e-Readiness Status

The Directorate of Education is proactive in terms of implementation of e-Governance initiatives. The current state of e-readiness of the department is as follows:

- Computer Aided Learning (CAL) Programme: Launched in 200 schools for Class VI Students. All the five subjects (English, Hindi, Science, Mathematics and Social Studies) are taught with the help of multimedia contents developed in-house using animated cartoons. Children have to operate the computer for writing the test with regard to the subject.

- Online Admission: Admission of students in Delhi Government School made online. Information of school allotted is available online with respect to each and every child. This facilitates rationalized and equitable allocation of schools.
- Finance: Budget for all schools, sanctions for salary and other expenditure bills are automated. DDEs and Principals can view expenditure of allotted amount to their establishments. Total expenditure is available on a day-to-day basis, scheme wise, month wise and on other opted query. Around 1,500 crore Rupees budget of the Department is being allocated online under various heads. Sanction and disbursal orders of the same are maintained online.
- Human Resource: All appointments, transfers, posting and relieving of the employees are done through the web based system only. Real time attendance of all the staff and students of 929 schools and branches is monitored. Notices, circulars, tender notices etc are also circulated through the web based system. Online Communication to all the employees and officers of the Department who are spread all over Delhi, from the Headquarter and vice-versa.
- Payroll Module: Monthly pay for all the employees of the Department is prepared online through this module only. A Salary bill of around 40,000 employees is generated through web-based system.
- Students: Data pertaining to attendance, academic achievements, health, extra curricular activities etc. is maintained.
- CBSE, CCEP Results online: Students themselves can view their performance through the designated link.
- Infrastructure: All schools are mapped on a GIS Map which is accessible to all the officers of the department.
- Computer Education Project: All government schools have been provided one computer lab consisting of ten PCs connected on a LAN along with three instructors for providing computer education to the students from class VI to class XII under the Public Private Partnership Model.
- File Tracking: Files moving among various officers in the Department are recorded through this online module only. Any authorized person of the Department can directly access and view the status of the file where it is lying and for how many days.
- Vigilance Module: All the Vigilance Cases in the Department are processed through this module.
- Court case Module: All the Court cases in the Department are processed through this module only.

e-Governance Roadmap for Govt. of NCT of Delhi

66

Education Department					
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed Initiatives	Criticality Feasibility
1	Literacy awareness for citizens	G2C	<ul style="list-style-type: none"> Lack of motivation for participation by the citizens Bringing the educational institutions as close to the place of residence as possible Control high drop out rates in schools 	<ul style="list-style-type: none"> Collaboration with NGOs and corporates with Corporate Social Responsibility initiatives to increase literacy awareness Setup computer kiosks in slum areas with the focus in the beginning to attract children towards using the computers by installing games and multimedia based content and then moving to knowledge based content Mobile Education Awareness Centers <ul style="list-style-type: none"> Dissemination of information to increase awareness of education in remote and slum areas using buses as mobile classrooms The mode of delivery of these centers should be interactive multimedia based These centers can further be used to impart vocational trainings Comprehensive campaign using SMS, Radio and Television media with focus on linking education with better living 	<p>High</p> <p>Low</p> <p>High</p> <p>Low</p>

* Note A - The Directorate of Education is a leader in terms of implementation of e-Governance initiatives. The Directorate already has a comprehensive Student Management Information System with required modules like Finance, Payroll, Human Resources, Student Information, MIS, School Infrastructure etc. which addresses their core services.

** Note B- Some of the challenges faced by the Department requires policy/infrastructure change.

*** Please refer to "leading practices" section to understand the details about the scheme

e-Governance Roadmap for Govt. of NCT of Delhi

67

Education Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed Initiatives	Criticality	Feasibility
2	Quality education and training to students	G2C, G2E	<ul style="list-style-type: none">- Inadequate number of skilled teachers and IT related teaching staff	<ul style="list-style-type: none">- Collaboration with NGOs and corporates with Corporate Social Responsibility initiatives for teaching in schools during weekends	High	High
				<ul style="list-style-type: none">- Encourage Community Centers concept for imparting basic education	High	High
				<ul style="list-style-type: none">- e-Learning/ Training *** Consolidated Web Based System for imparting education to School Students vocational Trainings via a host of interactive tools & multimedia Technologies. This system could have a number of sub-modules such as Online Test, Voice Enabled Tutorials, etc.	Low	High
3	Providing qualified teaching staff at schools		<ul style="list-style-type: none">- Creating a modern curriculum to ensure that the digital divide does not impact the new generation	** (Refer Note B)		
			<ul style="list-style-type: none">- Up-gradation of skills of teachers on a regular basis- Lack of incentive based system for performers, especially in the area of IT	<ul style="list-style-type: none">- e-Learning / Training *** Computer based learning to be provided on a regular basis to teachers for upgrading their skills. Regular online courses followed by qualifying tests will help to continuously upgrade the skill sets	High	High

* Note A - The Directorate of Education is a leader in terms of implementation of e-Governance initiatives. The Directorate already has a comprehensive Student Management Information System with required modules like Finance, Payroll, Human Resources, Student Information, MIS, School Infrastructure etc. which addresses their core services.

** Note B- Some of the challenges faced by the Department requires policy/infrastructure change.

*** Please refer to "leading practices" section to understand the details about the scheme

Education Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed Initiatives	Criticality	Feasibility
				<ul style="list-style-type: none">International and national Teacher's exchange program to upgrade skill-set and motivational level of teachersComprehensive program for orientation of teachers towards technology enabled methods of teaching. Focus would be to invite private participation from IT/ITES companies.Incentives to be provided for obtaining certification in IT enabled areas for teachers.Computer literacy to be made mandatory for recruitment process.	High	Low
			<ul style="list-style-type: none">Compensation structures for the teachersEncouraging youngsters take up teaching as a profession	** (Refer Note B)		
4	Quality learning infrastructure and environment for students e.g. laboratory equipments, library, teaching aids, computers	G2C	<ul style="list-style-type: none">Inadequate information for planning and projecting future projections with respect to infrastructure development	Integration of Registration of Births and Deaths with the education department for access to data relating to births. This data will facilitate the department in projection of future infrastructure requirements	High	High

* Note A - The Directorate of Education is a leader in terms of implementation of e-Governance initiatives. The Directorate already has a comprehensive Student Management Information System with required modules like Finance, Payroll, Human Resources, Student information, MIS, School Infrastructure etc. which addresses their core services.

**** Note B-** Some of the challenges faced by the Department requires policy/infrastructure change. with required modules like Finance, Payroll, Human Resources, Student Information, MIS, School

*** Please refer to "leading practices" section to understand the details about the scheme

e-Governance Roadmap for Govt. of NCT of Delhi

69

Education Department				
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed Initiatives
	etc.		<ul style="list-style-type: none"> Cumbersome processes for seeking approvals and implementation for any infrastructure development 	** (Refer Note B)
			<ul style="list-style-type: none"> Up-gradation of infrastructure in terms of classrooms, playgrounds, libraries, computer laboratories etc. 	<ul style="list-style-type: none"> Collaboration with NGOs and private sector as part of their Corporate Social Responsibility initiative to provide infrastructure Tie ups with computer training institutes to use their IT facilities during non-peak hours and impart IT based education to the teachers & students Library Management <ul style="list-style-type: none"> Managing the libraries in a more organized manner through an online centralized system for all schools. The Library management system can further be integrated with the Delnet system and other Government libraries The centralized application would also help track loss and damaged books which would further assist in centralized procurement and inventory management Online Library aims at making the soft copies of books available online for the students
				<p>High</p> <p>Low</p> <p>High</p>

* Note A - The Directorate of Education is a leader in terms of implementation of e-Governance initiatives. The Directorate already has a comprehensive Student Management Information System with required modules like Finance, Payroll, Human Resources, Student information, MIS, School Infrastructure etc. which addresses their core services.

** Note B- Some of the challenges faced by the Department requires policy/infrastructure change.

*** Please refer to "leading practices" section to understand the details about the scheme

e-Governance Roadmap for Govt. of NCT of Delhi

70

Education Department					
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed Initiatives	Criticality Feasibility
5	Career awareness, counseling and vocational training to citizens	G2C	<ul style="list-style-type: none"> Lack of awareness regarding various avenues available for the students Creation of new training institutes Lack of qualified counselors 	<ul style="list-style-type: none"> Setting up of core center for counseling which could have access channels like telephone, internet etc. Career counseling through online chats / query mode and telephone. This system could further be integrated with employment exchange to provide details on vacancies and also profile the upcoming career sectors. Additional temporary counseling centers can be setup during the admission period Brochures for career counseling providing Information dissemination through various media including print media, internet, telephone etc. 	High Low
6	Administrative functions e.g. transfers and postings, attendance, performance monitoring etc	G2E	<ul style="list-style-type: none"> Lack of incentive based system for performers Mismatch in salaries of teachers in the IT domain with that of IT industry 	<p>* (Refer Note A)</p> <p>The department's School Management System includes these function, however an incentive based linkage for performance could be build into it. (The same should be linked with the common incentives for "Personnel information management system")</p>	High High
7	Monitoring of state and national level schemes	G2G	<ul style="list-style-type: none"> Lack of appropriate system to capture and analyze information with respect to various schemes and use it for effective decision making 	<p>Education statistics monitoring and reporting system ***</p> <p>This system shall be used for maintenance and status monitoring of schemes in terms of budget allocation and number of beneficiaries. It shall also monitor statistics regarding the School results, literacy rate,</p>	High High

* Note A - The Directorate of Education is a leader in terms of implementation of e-Governance initiatives. The Directorate already has a comprehensive Student Management Information System with required modules like Finance, Payroll, Human Resources, Student information, MIS, School Infrastructure etc. which addresses their core services.

** Note B- Some of the challenges faced by the Department requires policy/infrastructure change.

*** Please refer to "leading practices" section to understand the details about the scheme

e-Governance Roadmap for Govt. of NCT of Delhi

71

Education Department					
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed Initiatives	Criticality Feasibility
				student drop outs, Repetition rate, women enrollment, placements, and quality of education and infrastructure parameters. (This should be a part of the common initiative "Scheme monitoring system" customized to the department)	
8	Information dissemination about both public and private schools in the city	G2C	<ul style="list-style-type: none"> Establishing the authenticity of information being provided by various schools Absence of process of categorization of schools on basis of performance parameters 	<p>Creation of centralized repository to maintain key information with respect to all schools in the state and exposing it to the citizens for their information and evaluation. The information captured as a part of the repository could include:</p> <ul style="list-style-type: none"> Number of recognized seats available in every school for various categories Different courses offered Procedure for admission School Ranking 	High High

* Note A - The Directorate of Education is a leader in terms of implementation of e-Governance initiatives. The Directorate already has a comprehensive Student Management Information System with required modules like Finance, Payroll, Human Resources, Student Information, MIS, School Infrastructure etc. which addresses their core services.

** Note B - Some of the challenges faced by the Department requires policy/infrastructure change.

*** Please refer to "leading practices" section to understand the details about the scheme

Education	
Leading Practices	Case Studies
<ul style="list-style-type: none"> School Management system – automating various processes of primary, secondary and higher secondary schools. This can have student management system, online results module etc and databases like students database, Teacher’s database etc). Education statistics monitoring and reporting system – School results, literacy rate, student drop outs, repetition rate, Women enrollment, placements, quality of education, infrastructure parameters e-Learning system – consolidated web based system for imparting education to school students and also for facilitating various teacher’s training and vocational trainings via a host of Interactive tools and multimedia technologies and by utilizing web tools. 	<ul style="list-style-type: none"> The Management Information System for Education serves mainly as a means of adding/editing details about schools/employees; searching for schools/employees; online transferring, relieving and joining of employees; and generating various reports. It can also be used to issue appointment orders, transfer orders, relief orders and joining orders and to update the online employee and school database. ITALY – Regional network of all schools to overcome the digital divide in the educational field through the use of ICT in the schools. The project started in 2000 consists of an integrated network of interconnecting all schools (including those with buildings at separate sites) in order to enable all actors of the regional school system to use ICT in an everyday teaching and administrative context. Tunisia – Virtual University / distance learning. It provides open distance education using multimedia technologies to cover various educational levels like university and college courses, continuing education and life long education. The objectives of the Virtual University of Tunisia are to: <ul style="list-style-type: none"> Spread distance education and make it accessible to all qualified people; Foster a continuing learning environment, with the vision of building a learning society;

Education	
Leading Practices	Case Studies
<ul style="list-style-type: none"> Online Education Portal – one stop shop for information on all aspects of the education department 	<ul style="list-style-type: none"> Spain APONTE project - The APONTE project, carried out in Galicia (northwest Spain) and northern Portugal, focused on introducing ICT (new technologies) in rural areas. The overall approach was to analyze the advantages of using ICT in secondary schools. <p>Its use of ICT includes:</p> <ul style="list-style-type: none"> An APONTE web site Aula APONTE, a Web-based collaboration tool with such features as web mail, a chat tool, discussion forums and course sections The Internet Starter Kit, a self-training CD-Rom for teachers that includes basic information and a practical guide for Internet beginners Videoconferencing Additional printed and multimedia training material
<ul style="list-style-type: none"> Online Digital Library for Information access and sharing 	<ul style="list-style-type: none"> Africa Online Digital Library The United Nations Educational, Scientific and Cultural Organization (UNESCO), through its Intergovernmental Information for all programmes, designed and implemented a project to disseminate information and knowledge residing in the public domain to underprivileged segments of 10 African countries. It worked with national and sub regional government agencies, civil society and NGOs to collect local content in digital format and create CD-ROM anthologies containing educational and training documents relating to agriculture, history, science and technology, and government, among other subjects. <p>The grass-roots programme was designed to raise awareness among Africans about the availability of public information that can be used to help them to better their socio-economic positions. The project organizers generated over 1,300 localized documents to be distributed throughout marginalized segments of society in the 10 participating countries. The project administrators, working with local distribution centers (i.e., libraries, telecentres) and grass-roots organizers, bundled 2,000 CD-ROMs with personal computers and printers to educate the public about how to use this newly created content to their advantage</p>
<ul style="list-style-type: none"> Partnership with private firms – Partnership with private firms who takes up initiatives of teaching students / teachers in a specific region. 	<ul style="list-style-type: none"> Korea – Partnership with Intel for Students and teacher training – Intel taught over 25,000 teachers, principals and policymakers and 1,000 future teachers at 10 universities nationwide

12.3. Infrastructure

The Infrastructure sector of the state forms the backbone of all the commercial and social activities as it is concerned with construction, maintenance, and study of the infrastructural needs and facilities of the state. As the host city for the 2010 Commonwealth Games, infrastructure is an area which is likely to be in focus. This also implies that the state is likely to become the hub for a vast population of job seekers and a large immigrant population including tourists. It is in this context that the areas of transport, land and building, irrigation and flood control, public works and urban development become important.

Water resources are scarce and Delhi has an urgent need to preserve the purity of Yamuna waters. An expanding city places a lot of stress on housing needs as well as corporate needs for infrastructure. It is important that the state develop its real estate in a planned manner. Land and building development has to be in conjunction with the work of PWD as well as transport department to ensure that basic amenities are well spread out.

Delhi Metro is an excellent model for development which can be adopted elsewhere within the state for infrastructure development. It is in this context that the work of Land and Building, Public Works Department, Urban Development and Transport requires synergy. As the capital city, Delhi needs to be a showcase for India's capabilities as well as its exquisite history. Tourism as an industry would be successful only in the presence of a reliable and world class infrastructure. This in turn requires a highly motivated workforce. Therefore, infrastructure development for Delhi is another prime focus area for the e-Governance roadmap.

The prioritized departments constituting the Infrastructure Sector include Irrigation and Flood Control, Land and Building, Public Works Department, Tourism, Transport and Urban Development.

Irrigation and Flood Control

The Irrigation and Flood Control Department is responsible for:

- Protection from flood: Protecting the city of Delhi from floods in River Yamuna, by construction, maintenance of embankments and flood protection works. Effective monitoring of the flood situation in the river basin during the floods and take all precautionary/preventive measures.
- Removal of drainage congestion: Construction of new drains, called Supplementary Drains. To provide drainage to Delhi area through various trunk storm-water drains.
- Irrigation: Provision of effluents from their 3 plants at Okhla, Keshopur & Coronation Pillar for farming. Implementation of the Lift Irrigation Plan, though the area covered under the plan is very little. Provide irrigation facilities to the cultivators of Delhi through 74 State Tube Wells

Besides the above main functions of the Department, Irrigation & Flood Control Department is also entrusted with planning and execution of various types of civil works to be executed on behalf of different Departments of Govt. of Delhi. A total outlay of Rs.1, 000 Lakhs has been approved for the department under the 10th Five year plan.

Development Goals and Agenda

- Provision of irrigation facilities to the farmers of N.G. Block through effluent irrigation which will irrigate additional command area of 800 hectares (Rs. 1.00 lakh in Annual Plan, 2005-06)
- Recharging of ground water by water harvesting in N.C.T. of Delhi (Rs. 2.00 lakh in Annual Plan, 2005-06)
- Extension and Improvement of Effluent Irrigation
- Water Conservation, recharge of ground water and creation of water detention basin

Current e-Readiness Status

- Various forms for registration are available on the department's website for download. Currently most of the office administration work is done manually and the progress reports for the same are also prepared on paper format
- PAO software for accounting is under implementation

Irrigation & Flood Control						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1.	– Status of various construction projects	G2C	– Multiplicity of authority between MCD and F&I Department w.r.t. demarcation of jurisdiction of operations	– Construction Monitoring System System to monitor the progress and expenditure of various construction projects w.r.t. Link roads, community halls, Samshaan Bhoomis, veterinity hospitals and boundary walls for forest undertaken by the department.	High	High
			– Absence of systems (GIS mapping) / databases to track and monitor the de-silting process for Nalas, deposit work across the city	– GIS mapping of the state's water resources and drainage system could help resolve the issue of multiplicity of authority as well as assist in tracking, monitoring and planning the activities w.r.t. de-silting. This could link with Remote sensing data with drainage patterns and can be used for monitoring. – Further, for the monitoring of de-silting of nalas, Process Control equipments to monitor the flow of water could be installed, which would help evaluate the difference in flow of water post de-silting. (This should be linked to the common initiative of "GIS Mapping" for the state)	High	Low

Irrigation & Flood Control						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
2.	– Procurement, monitoring and management of tenders to contractors for de-silting of Nalas, cleaning of Yamuna and utilization of mechanical equipment	G2B	– Inadequate procedures to evaluate and grade the contractors on performance	<p>– e-Procurement</p> <p>A comprehensive web based application which enables automation of various stages of Procurement life cycle, starting from requirement gathering, formulation of tender document to finalization of successful tender and thereafter to project and contract management till completion of the project. The system would reduce processing costs and facilitates effective monitoring of placement of order with vendors, fulfillment of contractual obligations under scope of work and disbursement of payments</p> <p>(This should be linked to the common initiative of “e-Procurement” for the state)</p>	High	High

Irrigation & Flood Control Department- Leading practices

Leading Practices

Irrigation Information System (Govt. of AP)

A comprehensive system for the planning, design, construction, monitoring, operation and maintenance of irrigation schemes

Integrated computerized Information system (Govt. of Maharashtra)

The system helps to generate a comprehensive and integrated approach to planning and management of water resources on a multi Sectoral and river basin basis, including full incorporation of environmental management practices for resources protection and sustainability. This project enhances the efficiency of the department through electronic connectivity between its operational and other units and enhanced computerized management information system for informed decision making at all levels

Land and Building

Land and Building department is responsible for the large scale acquisition of land for the DDA (plan development) and other Govt. departments and agencies for undertaking various development projects. Other departments of Govt. of Delhi procure land for undertaking some development projects like construction of road, bridges, reservoir, and sewage plants through this department. The department also allocates alternative plots to people whose land has been acquired under the scheme of "Large Scale Acquisition Development and Disposal of land in Delhi".

Current e-Readiness Status

The following activities of the department have been computerized:

- Land acquisition
- Payment of compensation & Enhanced compensation
- Alternative plot allotment
- Housing loan disbursement and repayment
- Case monitoring

Land acquisition:

The department has a fully integrated web-based Land Acquisition Management system that connects the land and building department to all land acquisition collectors in the nine districts. The entire process from receipt of indent to framing of award and handing over of land has been mapped to the application. The application also has a module on monitoring of court cases.

Payment of compensation:

A complete electronic record of fund received and disbursement made to land owners, including enhanced payment is available through this system

Alternative plot allotment:

Web based application software which shows status of required documents filed and those awaited from applicants. The application further maintains a database of decisions of alternative plot allotment committee.

Housing loan disbursement and repayment:

Web based application software which maintains data on loan disbursed and repayments made. The application calculates liability for different types of loans given at different rates of interest. Further all loan takers can see their account online.

Government House Allotment:

It's a web based application which maintains seniority, wait list and allotment of Government accommodation to officials

Land & Building						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1.	<ul style="list-style-type: none"> Land acquisition Payment of compensation Alternative plot allotment Housing loan disbursement and repayment Government House Allotment Case monitoring 	G2G	<ul style="list-style-type: none"> Reconciliation of accounts of Land & building department with DDA 	<ul style="list-style-type: none"> Land & Building department has already embarked on major e-Governance initiatives mentioned above. However these initiatives are more inward looking w.r.t. internal computerization of processes. As a next step the department needs to establish interfaces with coordinating departments for online availability of information as may be required by L&B or other departments / agencies like DDA, MCD and District administration 	Low	High
			<ul style="list-style-type: none"> Lack of skilled technical manpower and motivation towards computerization by the existing staff Limited usage and adoption of Land acquisition application by the Land acquisition collectors 	<ul style="list-style-type: none"> Comprehensive Change Management program to orient employees towards usage of Information Technology based applications 	High	High

Public Works Department

Public Works Department is the premier government agency engaged in planning, designing, construction and maintenance of Government assets in the field of environment and infrastructure development.

PWD carries out its activities of asset creation on the basis of the needs and requirement decided by the Government and as assessed and appreciated by the PWD through its in house technical expertise. Works are carried out after obtaining formal Administrative approval and Expenditure sanction from the Government, within the allotted funds for the scheme.

The governing principle behind the PWD's sphere of activities is to ensure that the asset is durable, functioning efficient, serves the intended purpose, is created within the reasonable time period, is in conformity with the declared policies of the Government, and would satisfy the user, the Government and the public at large

With a view to provide a green and pollution free Delhi, PWD has been nurturing lakhs of trees, plants & shrubs and thousand acres of lawns & gardens on PWD roads, Govt. Colonies & Offices premises.

Development Goals and Agenda

- Continuous upgradation of the existing Delhi road system and construction of new roads, especially in sub-cities like Narela, Dwarka and Rohini
- Construction of an expressway linking five national highways so as to divert the interstate traffic in Delhi. This will help in reducing congestion on Delhi roads to a large extent and also reduce pollution
- The Infrastructure master plan 2001 envisages construction of freight complexes at the outskirts of Delhi thereby reducing excessive loading on major arterial roads
- Rain water harvesting for office buildings to be constructed in the campus areas of various institutions, offices, schools, hospitals, police stations and residential colonies under jurisdiction of PWD

Current e-Readiness Status

Following is the current status of automation in the PWD department:

- Human Resource Management for over 30,000 employees of state/Central Government through their Personnel Information System:
 - Salary Bills
 - Directory of all employees
 - Transfer/ Joining/ Relieving Orders
 - Leave Record with online leave application & its sanction
 - Customized Reports
 - Search & Identify Employee with photograph including all details
 - Upgradation of Skills through Training Course & Workshops
 - Communication system with and amongst all employees on the database
 - Project Management System
 - Decentralized Monthly updating of Status with Photographs
 - Brief and Complete Status Reports of Projects

Public Works Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1.	Planning, designing, construction and maintenance of Government assets nurturing trees, plants & shrubs and lawns & gardens on PWD roads, government colonies & offices premises.	G2C	– In-adequate monitoring of the construction activities to take care of time and cost overruns	<p>– Comprehensive Web based Project monitoring and tracking system: The system should have features for:</p> <ul style="list-style-type: none"> Periodic update of the construction progress. This updated information should be exposed to Citizens for comments, feedback and suggestions if any Asset Management System Proactive alerts: The system should have the facility of escalation based on slippages. State-wide E-Procurement solution <p>– Road Information System around a GIS core ** The objective of this application is to build a kilometer wise-transportation-related spatial and non-spatial database. Data from a variety of sources shall be integrated into one database accessible to the PWD officials.</p> <p>(This should be linked to the common initiative of "GIS</p>	High	High
					High	Low

** Please refer to "Leading Practices" section to understand the details about the scheme

Public Works Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
				<ul style="list-style-type: none"> Mapping" for the state) Electronic clearing system for payments to be made to contractors. This would help reduce cycle time and bring in transparency to the payment process 	Low	High
			<ul style="list-style-type: none"> Citizen accountability & transparency with respect to money spent and value derived from developmental projects 	<ul style="list-style-type: none"> An interactive portal for public interaction and a mode for citizens to convey their suggestions and grievances for quick redressal and for early service delivery 	Low	High
2.	Procurement for services, contractors	G2B	<ul style="list-style-type: none"> Tracking the procurement process in a seamless manner 	<ul style="list-style-type: none"> E-Procurement** solution to enable automation of various stages of Procurement life cycle, starting from requirement gathering, formulation of tender document to finalization of successful tender and thereafter to the project & contract management till completion of the project. The e-procurement solution should be interfaced with the project monitoring and tracking system to provide updates on the milestones achieved, thereby keeping a contractual, commercial and service level track of 	High	High

** Please refer to "Leading Practices" section to understand the details about the scheme

Public Works Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
				Contractor's commitments (This should be linked to the common initiative of "e-Procurement" for the state)		

*** Please refer to "Leading Practices" section to understand the details about the scheme*

Public Works Department- Leading practices

Leading Practices

Works Management System and Inventory Management System

The Works Management system provides details of Technical sanction, administrative approval, preparation of estimates, draft tender papers, running account bills data and works data. The Inventory management system provides details of inventory of roads, bridges and buildings. Both these modules should be enhanced to increase the offered monitoring capabilities.

Online Tendering

The feature of this software shall enable the user to submit view, download and submit the tender forms. This application shall enable the authorities to view value wise, date wise list of works with given contractors, list of bidders, bidder selection etc.

Road Information System around a GIS

The objective of this application is to build a kilometer wise-transportation-related spatial and non-spatial database. Data from a variety of sources is integrated into one database accessible to the PWD officials. Data on road number, road condition, road width, base type, speed limit, commercial trees on different sides, important structures, rainfall zone etc. for each and every kilometer of roads were collected with the help of officials from Public Works Department would be integrated in the application. A combination of both these data sets has then been used to conduct spatial analysis, which will help the PWD to carry out the planning and management of the vast road network of the State efficiently.

Case Study

E-procurement - Electronic Tender Handling, Information and Communications (Denmark)

The Electronic Tender Handling, Information and Communications System was developed by National Procurement Ltd. Denmark (SKI) with the mission to coordinate procurement, perform tenders and negotiate framework contracts on behalf of all Danish public agencies.

The system has been actively implemented since 1995. It covers planning, drafting and publication of tenders; management of all associated processes; issuance and running of online tenders in a secure way using the newest collaboration technology and digital certificates; assisting in the final decision and award process; and supporting team rooms for external specialists, advisers and users.

Tourism

The Delhi Tourism and Transportation Development Corporation are responsible for Tourism and Allied Services. The allied Services include:

- Foreign Exchange
- Catering
- Education
- Festivals etc

Delhi only has 0.4% share of international tourist arrivals and a large volume of domestic travelers- mainly in the religion / pilgrimage segment.

This sector deals with tourism infrastructure, promotion of tourism in Delhi, grant-in-aid to DTTDC and conducting 3 years Diploma course through Delhi Institute of Hotel Management and Catering Technology. A total outlay of Rs.6, 000 Lakhs has been approved for the department under the 10th Five year plan.

Some of the schemes of the 10th Five Year plan are:

- Establishment of wayside amenities and Signature Bridge
- Development of Mini India Heritage Complex
- Development of Dilli Haat type projects in different parts of Delhi
- Publicity through Print and Electronic Media
- Participation in national/international fairs/conference/ marts/ convention /exhibitions in Delhi

Development Goals and Agenda

At present, the arrival of foreign tourists in Delhi is approximately 13 lakhs annually with the growth rate of 5% per annum. With the introduction of modern techniques of dissemination of tourists' information, identification of new destinations, better marketing and services, it is contemplated that growth rate shall be progressively stepped up and by the year 2008, number of tourists visiting Delhi shall be approximately 25 lakhs. In addition, domestic tourists shall be double within the next five years through the following measures;

- Promotion of domestic and international tourism: The main agenda of this department is to attract people for tourism purposes and for this there is an urgent need to develop Delhi as a tourist destination.
- Promotion of Adventure Tourism in the capital through various facilities for outdoor leisure by undertaking water sports and allied activities in the existing water bodies
- Conservation and preservation of heritage and upgradation of monuments
- Development of Tourism related infrastructure and co-ordination with agencies involved in tourism industry

Further Delhi is the Host city for Commonwealth Games 2010. In light of the same, DTTDC needs to gear up its infrastructure and facilities to host participants and tourists visiting Delhi for the Games.

Current e-Readiness Status

Delhi Tourism and Transportation Development Corporation have taken following initiatives in the area of e-Governance:

- A Multilingual website (in English, Spanish, German and Japanese) is currently under development for making tourist information easily available
- Plasma display with touch screen kiosk at tourist information counter
- Liquor inventory management system
- Financial Accounting System
- Taxation System
- Assets management system
- Airline Reservation system
- Foreign Exchange services
- Airline reservation system and Foreign exchange services
- Computerized ticketing at Dilli Haat and Garden of five Senses

Tourism Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1.	Promoting Tourism and providing allied services like Foreign Exchange, Catering, Tourism Education and Events/Festivals etc.	G2C	<ul style="list-style-type: none"> No single point interface for tourists for accommodation, ticketing hotels, etc. Lack of adequate promotion of Delhi as a tourist destination through various international and national media Absence of systematic planning of events round the year to market and attract tourists 	<ul style="list-style-type: none"> Tourist Information and Assistance System (TIAS) User-friendly and single point interface between the tourists, tourism department and related services with modules like: <ul style="list-style-type: none"> Online Accommodation - Online bookings for hotels, PGs and other residential accommodations registered with the Tourism department. The module would provide tourists with information on availability, location, costs, facilities and other miscellaneous services being offered by the agencies Ticketing, Transportation and tour planning - Facilitation of online reservation of tickets / entry passes for airlines, trains, buses, cabs as well as other important tourists destinations and events. Facility to plan tours online and book tickets for the same. Registration of Hotels, PGs and other residential accommodations. Creation of an agency which would validate the facilities provided by the various hotels and assign ratings to them Guide Registration Comprehensive, interactive and 	High	High
					High	High

Tourism Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
				<p>transactional capacity based portal for tourism. The portal should have basic features like:</p> <ul style="list-style-type: none"> Tourist reservation system through multiple touch points like Internet and kiosks offering services related to Hotel, Air, Train, bus and cab; issue of tickets for entry to tourists and leisure spots; tour planning Online calendar of events Comprehensive centralized application to register and offer paying guest / service apartments to tourists <p>– Tourist Help Line through Call Center which would provide Tourist related information, grievance redressal, enquiries and general feedback. Further the Call Center could be linked with the support services like Traffic police, ASI etc.</p> <p>Additional Tourist information services can be provided through SMS, Touch Screen Kiosks, Digital display maps and Internet for Information dissemination. The Touch Screen Kiosks and display maps should be placed at prominent places like Airports, Railway stations, Bus Depots,</p>	High	High

Tourism Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
				<p>Metro stations, Major Tourist spots and Shopping malls etc.</p> <ul style="list-style-type: none"> Transport smart cards: Multi-mode transport smart cards valid in Tourist buses, cabs, metro etc. Integration of the bus route with metro system to provide robust multimode transport system and availability of common pass for the same 	<p>Low</p> <p>High</p>	<p>Low</p> <p>High</p>
			<ul style="list-style-type: none"> In-adequate private partnerships and investment in supporting tourism in areas like transportation, hotels, development of tourist's spots, taxi services, service apartments etc. 	<ul style="list-style-type: none"> Private Public partnerships for destination development and increased global visibility by tie-ups with major tourism operators. 	High	High
			<ul style="list-style-type: none"> Non-availability of Land and permission procedures for development of new tourist destinations 	* Refer Note A		
2.	Construction Work	G2G	<ul style="list-style-type: none"> Non-availability of Land and permission procedures for development of new tourist destinations 	<ul style="list-style-type: none"> Deposit Works Monitoring System Online Monitoring & tracking of all construction activities carried out by the department <p>(This should be linked to the common initiative of "e-Procurement" for the state)</p>	High	High

*Note A – Some of the challenges faced by the Department required policy / infrastructure change

Tourism Department- Leading practices

Leading Practices

Versatile Information System for Tourist Attraction (VISTA), AP State

VISTA is a first-of-its-kind integrated system that uses the power of IT to promote tourism and facilitate tourist operations. The application monitors and handles queries about availability of accommodation, package tours and other tour-related utilities. Vista also provides a separate module for financial accounting.

Using a wide area network (WAN), VISTA provides a very powerful, sophisticated and user-friendly interface between the tourist and tourism service provider. A portal-styled website and interactive browser-based multimedia CD-ROM presentations with rich audio-visual content (promotional software) is another key feature. It provides touch-screen kiosks at various tourist points, so that the users can access tourist-related information, make enquiries and reserve services online. It also provides Travel Interface, e-Payments and tour planner.

MTDC Portal (Government of Maharashtra)

The Maharashtra Tourism Corporation is the premier body to develop tourism in the State. The department envisages to develop a portal which would provide a combination of recommendations, advisory services, bookings (a flight, renting a car etc., purchasing a travel guide, or locating/booking a hotel, with, say a vegetarian restaurant) based on the tourists implicit and explicit requirements. It would give travelers the most sought after data related to travel like:

- Flight availability
- Air, car and hotel bookings
- Low fare search capabilities
- Weather reports
- City maps
- Currency converters

Transport

Transport Department is committed to provide safe, eco friendly, cost effective and efficient mode of transportation through well integrated, multi- modal Transport system.

The department is responsible for entering into Road Transport agreement with neighboring States and administration of Motor Vehicles Act-1988 and Rules framed there-under. The following activities also come under the purview of the department:

- Road safety and related activities with special emphasis on school buses
- Enforcement and Pollution Control activities
- Issuance of permits to various categories of transport vehicles and countersignatures to other-state transport vehicles
- Issuance and renewal of driving licenses and issuance of International Driving Permit
- Registration of vehicles and issuance of trade certificate to dealers of the vehicle
- Issuance of Certificate of fitness to transport vehicles
- Management and operation of Inter-State Bus Terminals
- Integration of Road Transport with Metro

At present, 9 Zonal Offices of Transport Department are working at various locations in Delhi. A total outlay of Rs. 2, 93,891 Lakhs has been allocated to the department in the 10th five year plan. Some of the proposed initiatives of the 10th five year plan are:

- Completion of the online computerization for registration of vehicles and associated activities
- Driving Licenses with Image Processing at Headquarters and Zonal offices and networking through ISDN/ RFLink
- All the Zonal computer systems are proposed to be networked through ISDN lines to allow flexibility of on-line updation and transaction of business at any Zonal office
- To stabilize day-to-day computer operations to handle public dealing in a transparent manner

Development Goals and Agenda

The 10th Five Year Plan and Annual Plans in respect of the “Motorized Transport” have been formulated by keeping in view the recommendations made in the “Report for Delhi - “2021”. The basic objectives of Urban Transport System for 2021 will be:

- Providing safe, efficient, eco-friendly, cost effective and modern technological modes of transportation through a well integrated multi-modal transport system
- Strengthening of the railway system and regional linkage between Delhi Metropolitan area and the National Capital Region towns
- Reduced usage of personalized vehicles through improvements in the public transport system, parking policy
- Control of pollution through technological interventions and enforcement of regulations

Current e-Readiness Status

The following activities / services have been computerized in the transport department:

- Registration of vehicles
- Road tax collection
- Issue of Driving License
- Issue of Permits
- Fitness of commercial vehicles
- Enforcement of provision of Motor Vehicles ACT & Rules
- Smart Optical Card based Registration Certificate issued for Private Vehicles
- All the pollution checking centers have been computerized

Online Services

- Online query on ownership of private vehicles
- Online query on cancelled driving license
- Online self registration on first sale of Non-Transport Vehicles

- Online appointment for general public with Motor Licensing Officers

The Computerization program of the Department envisages creation of a Wide Area Network (WAN) connecting all Zonal authorities, two sub-offices and National Crime Record Bureau (NCRB) with host computer installed at Headquarter.

Transport Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1	Issuance of permits to various categories of transport vehicles	G2C	<ul style="list-style-type: none"> – Cumbersome process for obtaining short term permits 	<ul style="list-style-type: none"> – Online application and payment of fee for short term permits 	High	High
2	Registration of vehicles, Issuance of trade certificate to dealers of the vehicle and Issuance of Certificate of fitness to transport vehicles	G2C	<ul style="list-style-type: none"> – Keeping a track of vehicles without renewed Certificate of fitness and sending proactive alerts to them – Lack of practicality of solutions delivered in the past e.g. Smart cards for private vehicle registration has no practical use of the technology 	<ul style="list-style-type: none"> – Web Enablement of the Check Post to validate certificates and permits issued to vehicles. The Check posts could also be equipped with Smart card readers which could read information related to registration of the vehicles, fitness certificates and permits etc. stored in the Smart cards issue to the vehicles. – Design of applications that would be uploaded on the Smart Cards issued for Private and Commercial Vehicle registration would store information w.r.t.: <ul style="list-style-type: none"> ▪ Permit details ▪ Pollution check ▪ Accident details ▪ Fitness check ▪ Insurance details and other related information 	Low	Low

Transport Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
3	Enforcement of pollution control activities	G2C	– Pollution Checking Centers are not linked to a central database to track and issue notices to vehicles which have not completed the pollution check as per requirements	– Interlinking of the Pollution Checking Centers with a central database to track and issue notices to vehicles which have not completed the pollution check as per requirements	High	High
4	Issuance and renewal of driving licenses and issuance of International Driving Permit	G2C	– Citizens are confined to one zonal office rather than being able to avail services from any zonal office.	– Networking between Zonal offices and centralization of application to provide Jurisdiction free services to citizens. – Design of applications that would be uploaded on the Smart Cards issued for driving licenses would store information w.r.t.: <ul style="list-style-type: none">▪ Personal Information▪ Challan details▪ Blood Group information▪ Insurance Information	High	Low
5	Enforcement/ challan for non-compliance of rules and regulations and Pollution Control activities	G2C	– Absence of repository and monitoring systems to profile citizens on the basis of challans issued / offence committed and further using this information for informed decision making / penalizing by courts & traffic police	– Challan System (with handheld systems) Smart Card based applications to support enforcement agencies like traffic police, check posts etc. in the form of Hand-held terminals to read and write information on the smart cards and upload it back to the central database – Interface between Police,	High High	Low High

Transport Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
				<p>traffic courts and Transport department for exchange of information</p> <ul style="list-style-type: none"> – Online payment system for payment of Traffic challans, permit fees, registration fees etc. This service can be provided through CSBs and Easy Bill counters as well. – Traffic Court Case Management System Monitoring of each traffic violation committed by the citizen and keeping a track of the past history to profile the citizens in different categories for penalties 	<p>High</p> <p>High</p>	<p>High</p> <p>High</p>

Transport Department- Leading practices

Leading Practices

Transport management and information system

The integrated system consists of modules like driver License, vehicle registration, road taxes module, challan payment, B-Extract Issuance, Dealer Registration & Toll tax module

NIRDESHAK (Automatic Fleet Management System)

A GPS-based automatic fleet management system, used for monitoring and controlling vehicles from a central station. Using the GPS-based Nirdeshak, the Road transport monitors many of its long-distance, inter-city routes as well as one of its most important intra-city routes, as a part of the project. The system uses SMS messaging (GSM mobile phones) for real-time data transfer between the buses and the central control station (CCS). There are large displays at key towns' en-route, for the benefit of passengers. The bus-station displays are interfaced with the CCS, using dial-up links. Apart from its position and other features, even the availability of seats inside the bus before its arrival at the specified stop can be displayed.

Bus Ticket reservation system: Web Based application, integrated with Department of Transport and Orissa State Road Transport Corporation (OSRTC), to enable the tourists to book tickets online. The computerized Reservation Network to include Private agents on Revenue Sharing terms and establishment of Remote Reservation counters across the State. The vision of ILIS is to help in integrated management of land information through a comprehensive, on-line Land Information System with the distinct features of financial self-sustenance, auto-updation, transparency and accessibility, while providing the services to its users in an integrated, cost-effective and efficient manner

Integrated System for Smart Card Driving License

Integrated application to power the Smart Card Driving Licenses that could be issued to the residents. These smart cards will be interfaced using Hand-Held Devices (which would be provided to the Department Officials).

Case Study

Smart Card case study for transport (Orissa)

Issuance of Smart Cards as Driving License to all residents of Orissa. These Smart Cards could store all the personal data, including biometrics and records of prior traffic violations, and all new infractions could be added onto these Cards instantly through Hand-Held Devices that the Transport Department Officials would be provided with. System could also make it compulsory for all the applicants to visit the Transport Office personally to be photographed and fingerprinted. System would increase control on issue of license & tracking of offences and forging of licenses would become difficult

Contact-less Smart Card at Argentina

- This system introduces a common stored-value payment and ticketing card for use on all bus, metro, and rail services operating in the Metropolitan Area. Such cards use Radio Frequency for fast and convenient processing.
- Cardholders - obtain a contact-less smart card, pay the deposit and add value for subsequent payments for public transport and other services as provided

Transport Department- Leading practices

- Card Issuing/Acquiring Entities -As card issuers they procure, initialize and distribute contact-less smart cards. They generate the necessary databases, monitor and track the value of cards, authorize replacements and refunds for faulty or returned cards.
- Sales or Load Agents - sell new contact-less smart cards under contract for specific card issuing/clearing entities, and add value to smart cards issued by all participating card issuers.
- Service Providers - accept payment by smart card for goods, services, and the use of facilities by cardholders and receive reimbursement through settlement with their card issuing/acquiring entity.

Auto E-counter Registration System at ITALY

Auto e-counter is a gateway to enable access to services and information relating to car registration and ownership. It is the first comprehensive exercise of collaboration between public and private organizations in the field of e-government implemented on a nationwide scale.

Auto e-counter has the capacity to dialogue simultaneously with the two key administrative partners in the motoring sector: the Ministry of Infrastructure and Transport and the Automobile Club d'Italia. It also opens up the system to the possibility of new partnerships with private agents, namely, the car agencies.

Urban Development

The Urban development department is the nodal agency for the secretariat functions of all the local bodies like Municipal Corporation of Delhi (MCD), Delhi Development Authority (DDA), and Delhi Jal Board (DJB). It is further responsible for taking up measures like: environmental improvement in urban slums, provisions of various facilities in urbanized villages, additional facilities in resettlement colonies, development of regularized unauthorized colonies.

Other departmental functions include channelizing of MLA funds, carrying out litigation and accounting operations with respect to local bodies, Organization of the International Co-operation cell and Common Wealth Games.

Development Goals and Agenda

- Enhancing the environmental quality by improving sanitation standards including promotion of the culture of “No littering” and optimum utilization of resources.
- Re-organization of Sweeping, collection, transportation and disposal system by using modern techniques and technologies including segregation at source and by launching the concept of Re-Use and Re-Cycle.
- Implementation of Solid Waste Management Handling Rules, 2000, Plastic Bill and orders passed by the Hon’ble Supreme Court of India and Delhi High Court
- Minimization of Green House Gas Emission by adopting proven technologies.
- Community and Public partnership and participation of private entrepreneurs and NGOs to create awareness programmes also in some core services.
- Welfare Schemes for Safai Karamchaires and other Sanitation Staff
- Implementation of e-Governance in the field of Solid Waste Management including Management Information System(M.I.S.) and Geographical Information System(G.I.S.), Public Grievances Redressal System; and
- Training Programmes, Consultancy and Setting up R&D facilities, in-house Programmes for various functionaries of sanitation department and also setting up facilities for assessment of environmental problems relating to Solid Waste Management System

Urban Development Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1	Nodal agency for the secretariat functions of all the local bodies like Municipal Corporation of Delhi (MCD), Delhi Development Authority (DDA), and Delhi Jal Board (DJB). Channelizing of MLA funds.	G2G	– Inadequate procedures to track, monitor and report the progress and benefits incurred from funds allocated to local bodies	– Fund Channelising & Tracking System Online application module which will enable online request, approval, tracking and channelizing of funds to various local bodies and for MLA funds. This module should be linked to other state Government applications like e-Yojana which should be updated periodically with the status of work, milestones achieved and value delivered in terms of benefits reaped from each of the initiatives / schemes	High	High
			– Manual accounting system being followed by some local bodies making tracking of funds complex	– Introduction of Electronic Accounting system in all local bodies who are still following the manual accounting	High	Low
			– No systems to support and track court cases	– Court Case Management System (This should be linked to the State common initiative)	High	High
			– Increased administrative workload of handling and channeling assembly question across departments in the absence of integrated state-wide workflow system	– Assembly question module (This should be linked to the common initiative “Assembly question module” for the state)	Low	High

2	Environmental improvement in urban slums, provisions of various facilities in urbanized villages, additional facilities in resettlement colonies, development of regularized unauthorized colonies	G2C	– Absence of requisite infrastructure like GIS maps and systems to monitor regularization of unauthorized colonies	– GIS maps for the state to assist in regularization of unauthorized colonies and detect large scale encroachments. Enable online monitoring of the regularization of various unauthorized colonies through an online system based on the GIS maps. (This initiative should be linked to the common initiative “GIS mapping” of the state)	High	Low
3	Organization of the International Co-operation cell and Common Wealth Games	G2G	– Reduced efficiencies due to inadequate computerization of internal administrative procedures and functions	– Online Management Information System	Low	High

Urban Development Department- Leading practices

Leading Practices

Integrated citizen facing application

Web Enabled, Citizen-Facing modules for on-line payment of dues like property tax, water charges, professional tax, building plan approvals, Trade Licenses, Issue of birth / death certificates, etc.

GIS Based Town Planning Application

Web Enabled, GIS application to have details of all the civic amenities available in cities/towns like roads drains, waste disposal facility, rivers ponds, buildings, establishments, electricity availability, etc. for making the development plans and for automating various processes of town planning, including preparing Master Plans

Scheme Management System

Consolidated Web Based System for effectively managing various Urban Poverty Alleviation Schemes and Programmes across the State via a set of status-based workflow, dynamic collaboration tools and interfaces for various participants

Integrated information management system

Consolidated Web Based System for managing the complete Infrastructure of Municipal Corporation, Municipalities, Notified Area Councils, State Urban Development Agencies, District Urban Development Agencies, Town Planning Units, Development Authorities, Improvement trusts and Special Planning Authorities. System could have a number of sub-modules such as Works Management System, etc.

12.4. Finance

Finance function constitutes the audit, finance, PAO and Planning department. This is the core of the Government in terms of allocation budgets, planning schemes, payables and other such activities.

This sector has large scope for automation in terms of monitoring status and success of schemes, tracking expenditure in an automated environment which would help improve efficiencies and effectiveness in planning and managing states finances.

Audit

The Directorate of Audit consists of the three wings i.e. Internal Audit, Examiner Local Fund Accounts & Finance Accounts. The primary function of the Audit Department is to verify the accuracy and completeness of the accounts ensure that all revenue and receipts collected to be brought to account under proper head, that all the expenditure and disbursement are duly authorized, vouched and correctly classified and that the final accounts represents a complete and true statement of financial transaction it purports to exhibit.

The Audit Department mainly carries out Annual Internal Audit and Special audits which are carried out on the request of the other Departments. The Department has 22 Audit parties which undertake the various audits to be performed. Their movement is tracked by the online Audit program, which gives information about the audit team, period of audit and duration and location of the audit.

Development Goals and Agenda

The main goal is the strengthening of the Department of Audit for which a budgetary allocation of 4 lakhs is made in the 10th Five Year Plan. The Development agenda of the department are:

- Ensure that inspection of all the offices within the jurisdiction of an internal audit organization is done at least once a year.
- Introduce performance audit with a view to ensure that all Plan/ Non-Plan schemes introduced by Govt. of NCT of Delhi for the welfare of society are being properly implemented in true spirit for which they were framed.

Current e-Readiness Status

- The department currently has few standalone computers used for word processing
- Online web based interface to get responses to audit paras

Finance Sector						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
Audit						
1.	Annual Internal Audit and Special audits	G2G	<ul style="list-style-type: none"> Absence of comprehensive integrated application to assist plan & execute the audit, communicate findings and seek online feedback Lack of automation tools / software to improve efficiency and effectiveness of audit 	<ul style="list-style-type: none"> Audit Management System Online web based application which would help plan audits, detail out work programs and capture audit findings and feedback. Selected information from this repository could be exposed on the website of Government of Delhi to bring in transparency and accountability Linking of adverse audit findings against Government employees with Cadre Management System 	High	High

Finance Sector Leading practices**Leading Practices****Audit**Integrated Finance Management system

Different modules are implemented to computerize different functions but in an integrated fashion. These modules are bill processing system, Compilation system, Treasury system; Works audit system, Govt. Provident Fund (GPF) system, Advances management system.

Finance

The Finance department is responsible for making sectoral budgetary allocations to the departments. The budget and budget speech are also prepared by this department. The Finance department works closely with the Planning department and has not deal directly with the public.

Delhi Kalyan Samiti is the department's point of contact with the citizens, where the Finance Department grants aids to various NGOs.

Development Goals and Agenda

- Boost and encourage the savings with two fold benefits, one to the investors and the other to the Government in the shape of loan from the Government of India against such savings for betterment of the public of Delhi.
- To draw up incentive scheme for mopping up small savings collections against the scheme floated by the Central Government, viz, KVP, NSC, PPF, TD, etc. Now the scheme of IVP has been dispensed with by the Central Governments
- To give wide publicity to various small savings schemes and the incentives offered there under through Press and Electronic and other publicity media.
- To educate the people to the National Capital Territory of Delhi both in rural and urban area, through extension workers/agents, the advantage of savings.

Current e-Readiness Status

- The department currently has computers used for word processing
- Online publishing of yearly budget

Finance Sector						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
Finance						
1.	Evaluation and approval of Financial Proposals	G2G	<ul style="list-style-type: none"> – Cumbersome manual administrative procedures 	<ul style="list-style-type: none"> – Online Financial proposal submission and approval system 	Low	High
2.	Publication of budget	G2G	<ul style="list-style-type: none"> – Current format is not in user friendly – Business Intelligence cant be obtained from the current format 	<ul style="list-style-type: none"> – Repository and online publishing of the budget in a user friendly format. The repository should provide the users options to search for budget details on various categories and heads. Further the repository should allow the citizen to compare and analyze budget under various heads across the years and similar other options. 	Low	High

Finance Sector Leading practices

Leading Practices

Finance

Budget and Resource Allocation system

Consolidated Application to allocate the annual head-wise budgets and resources for different Departments and monitoring the department-wise and sector-wise spending cycles periodically

Budget Monitoring system

For providing assistance during the preparation of head-wise budgets by various Departments and Agencies of State Government and monitoring all the allocated funds

KHAJANE: Online Treasury System of Karnataka

The online treasury project, KHAJANE, computerizes all the 216 treasury offices in Karnataka and is connected to a central server at the State Secretariat through VSAT (Very Small Aperture Terminal). It provides regular updates regarding the State expenditure and receipts to the central server. KHAJANE in Sanskrit means treasury.

KHAJANE aims to bring about a more transparent and accountable system of financial transactions and also discipline in operations and management, resulting in efficiency and cost savings for the government. This system eliminates duplication of data entry and maintenance of individual treasuries and enables uniform replication of modified data at the central server.

KHAJANE monitors stocks for stamps and safe custody articles in the state. It also addresses pension payment details for treasury to retired Government staff and social welfare schemes started by the government.

Some of the features of the project are as follows

Payments

- Information on budget allocation, expenditure and allotment details
- Maintenance of Bill Process Log for transactions

Finance Sector Leading practices

- Pay order generation

Receipts

- Online receipt details with updates of zilla and taluk panchayat balances.
- Challan information linking with various modules (stamps, OAP, payments and deposits).
- Automatic generation of treasury transfer receipts.

Deposits

- Easy tracking of account details, routed through agency bank or treasury.
- Online information on account balances.
- Interest calculation and signature display online.
- Lapsed deposits and its revival.
- Maintenance of savings bank account details.

Stamps

- Stamps inventory information maintained online.
- Inter treasury unit transactions recorded.
- Strong room details captured.
- Information on stamp stocks, embossing of documents.

Pension

- Maintenance of pension payment order details.
- Automatic conversion of enhanced family pension to normal family pension.
- Pensioner status information.

Principle Accounts Office (PAO)

Pay & Accounts Offices constitute the nodes of departmentalized accounts system while Principal Accounts Office is the organic Head Quarter of the various constituents of the system. The Controller General of Accounts (CGA), Government of India is the repository for convergence of Union Government Accounting Sub-systems

The Principal Accounts Office is responsible for payments related to all matters of the departments of Delhi Government. It also maintains and looks after the Finance Account of the Delhi Government. It consists of 25 Pay & Accounts Offices which in turn deal with around 1,500 Drawing & Disbursing Offices (DDOs). These are responsible for reconciliation of the receipts and expenditures of the various other departments of Delhi Government.

Development Goals and Agenda

- Strengthening of PAO
- Improve efficiency of the office by establishing following three cells:
- Pension Cell
- Setting up of EDP Cell
- Finance Accounts Cell

Current e-Readiness Status

The Principal Accounts office has automated several of its functions including:

- Payment of salary and other allowances of all the employees of Govt. of NCT of Delhi is being made through ECS scheme of RBI
- Automation of various accounting functions using application software named "PAO 2000"
- Telebanking System for downloading payment/receipt scrolls on daily basis in all PAOs attached with RBI
- Allotment of Personal Identification Number (PIN) to all the employees of Govt. of NCT of Delhi
- Departmental Website containing online grievances redressal system

Online Services

- Availability of information in respect of employees due to retire within 30 months.
- Availability & Updation of data relating to the Personal Identification No. of employees at PAO level.
- System for online complaint in case of non-credit of salary paid through ECS.

Finance Sector						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
Principal Accounts Office						
1.	Payment of salary & other Allowances to employees through respective Drawing & Disbursing Officers	G2E	<ul style="list-style-type: none"> - Duplication of work of bill reconciliation at DDO and PAO, due to non availability of adequate IT infrastructure and application at DDO to directly enter data - Cumbersome administrative procedures due to absence of linkage between PAO 2000, DDO 2005 and e-Yojana Software 	<ul style="list-style-type: none"> - ECS Payment - Integration of PAO 2000 and DDO 2005 	High	High
2.	Endorsement of Govt. of India orders and schemes to various departments.	G2G	<ul style="list-style-type: none"> - Non-availability of consolidated status reports in a single view with respect to status of various planned schemes. The same is due to the fact that the implementing agencies / departments prefer sending the update in physical mode rather than updating the same through departmental login for e-Yojna Software 	<ul style="list-style-type: none"> - Integration of Finance applications Consolidated view of Government finances and projects in terms of expenditure, scheme outlays, project status and payables by integrating of planning departments E-Yojna software with PAO 2000 and DDO 2005 software of Principal Accounts Office 	High	High
3.	Maintenance and settlement of GPF Accounts in respect of Delhi Govt. employees, Payment of pension and other retirement benefits to the pensioners	G2E	<ul style="list-style-type: none"> - Manual record keeping of all GPF accounts 	<ul style="list-style-type: none"> - Computerization of GPF accounts of all employees of GNCT of Delhi and providing a online view of salary statements, GPF details and pension related information 	Low	High

Finance Sector Leading practices

Leading Practices

Principal Accounts Office

Pension Payments

Computerization of pension payments through banks

ECS (Electronic Clearing system)

The Electronic Clearing System (ECS) is an online transmission system which permits the electronic transmission of cheque information by the banks / branches to the Automated Clearing House (ACH) via a communication network.

KHAJANE: Online Treasury System of Karnataka

The online treasury project, KHAJANE, computerizes all the 216 treasury offices in Karnataka and is connected to a central server at the State Secretariat through VSAT (Very Small Aperture Terminal). It provides regular updates regarding the State expenditure and receipts to the central server. KHAJANE in Sanskrit means treasury.

KHAJANE aims to bring about a more transparent and accountable system of financial transactions and also discipline in operations and management, resulting in efficiency and cost savings for the government. This system eliminates duplication of data entry and maintenance of individual treasuries and enables uniform replication of modified data at the central server.

KHAJANE monitors stocks for stamps and safe custody articles in the state. It also addresses pension payment details for treasury to retired Government staff and social welfare schemes started by the government.

Some of the features of the project are as follows

Payments

- Information on budget allocation, expenditure and allotment details
- Maintenance of Bill Process Log for transactions
- Pay order generation

Receipts

Finance Sector Leading practices

- Online receipt details with updates of zilla and taluk panchayat balances.
- Challan information linking with various modules (stamps, OAP, payments and deposits).
- Automatic generation of treasury transfer receipts.

Deposits

- Easy tracking of account details, routed through agency bank or treasury.
- Online information on account balances.
- Interest calculation and signature display online.
- Lapsed deposits and its revival.
- Maintenance of savings bank account details.

Stamps

- Stamps inventory information maintained online.
- Inter treasury unit transactions recorded.
- Strong room details captured.
- Information on stamp stocks, embossing of documents.

Pension

- Maintenance of pension payment order details.
- Automatic conversion of enhanced family pension to normal family pension.
- Pensioner status information

International Case Study

PAO- Tyoelake.fi: Online Advice and Information on Pensions (Finland)

The Web service Tyoelake.fi, provided by the Finnish Centre for Pensions together with all the authorized pension providers, comprises an extensive, informative web site in three languages that is open to everyone. The objective of developing the service is to create, within the decentralized earnings-related pension scheme, a uniform interface for electronic communication with the insured.

The following services are available at present:

Finance Sector Leading practices

- General information relating to pensions;
- An age-profiled advice service for all stages in life;
- A service whereby a client can check his or her contract of employment and employment details included in the registers and make any corrections; and
- A one-on-one advice service.

Innovative features of the service include the possibilities for authentication. The insured can use a card with public key infrastructure technology or the authentication technology of their own Internet bank to confirm identity.

Planning

The Planning Department is the nodal department for all plan matters and thus entrusted with the responsibilities of formulating long term, medium term and operative plans and to oversee the implementation of plan programmes, monitor the progress of plan implementation, evaluate the major plan projects and plan schemes as decided by Government of National Capital Territory of Delhi both at implementation stage and post-implementation stages and estimate the resources of Government of National Capital Territory of Delhi for financing the five year and Annual Plans.

Development Goals and Agenda

- Strengthening the planning machinery at State Head Quarter level and planning units in other Departments/Local Bodies
- Strengthening of the Planning Department to make its advisory role more effective and purposeful
- A major focus of reforms is on sectoral policies, restructuring of public sector undertakings, improving management of restructured public utilities, and pricing of public services including setting appropriate user charges
- The Government of National Capital Territory of Delhi has embarked on a programme of governance reforms and capacity building
- Creation of Annual status report on creation of new posts in the Departments of Delhi Government
- Conducting evaluation study of Tool Room Training Centre, Industries Department
- Evaluation study of Financial Assistance to widows for self-employment

Current e-Readiness Status

- E-Yojana application: The application monitors plan expenditure and physical status of plan schemes being implemented by various departments of Govt. of NCT of Delhi and Local Bodies. The monitoring of plan expenditure of all plan schemes is done on a monthly basis. Monitoring of resource position of Govt. of NCT of Delhi is also done through this software, where individual departments fill up information from their end.

Finance Sector						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
Planning						
1.	Prepare and monitor annual budgets and allocations for government departments	G2G	<ul style="list-style-type: none"> Interdepartmental interdependencies act as a major constraint as they make the process very time consuming as approvals are to be sought at every stage Delay in getting data from other departments 	<ul style="list-style-type: none"> Budget Monitoring system Online System for preparation of head-wise budgets by various Departments and Agencies of State Government and monitoring all the allocated funds. (This should be linked to the common initiative) 	High	High

Finance Sector Leading practices**Leading Practices****Planning**Scheme Monitoring System

Keep track of the financial and physical progress of the various schemes / projects planned in the State.

Decision Support systems

This module assists authorities to effectively plan the priorities of the State and facilitate the allocation of resources for decentralized planning. A data base management system would enable the authorities to streamline and generate data on streams, land, agricultural land, crop cultivation etc. This application would also assist them to retrieve the important and relevant decisions taken in the meetings and other data relevant for decision making.

12.5. Welfare

WELFARE

It is beyond doubt that Delhi is emerging as the employment hub for North India. However to ensure that these opportunities reach out to the most talented of youth, employment exchanges would need to play a very important role. Also, as the state embarks on an ambitious development plan, it is essential to attract talent to the state's administration to ensure that the development programs are well executed. Labour welfare becomes an important area of focus and it is also essential to ensure that labour rights are taken care of.

Co-operative societies can play a major role in tackling the problem of low-income employment especially by providing employment opportunities to women. Self-help groups have proved to be a major catalyst in social development and the state needs to immediately focus on promoting SHGs under the umbrella of co-operative societies.

It is unfortunate that Delhi has earned the tag of being India's crime capital. There is also a large population of people with special needs. Social welfare schemes need to be honed to tackle the above two problems. The logistics of food distribution in a vast state like Delhi poses immense complexities. It is also difficult to prevent hoarding and artificial shortages created to hike prices. In a socialist set up like ours, it is important to ensure that benefits of food subsidies reach the right persons. Spurious ration cards, adulterated food items and black marketing are two social ills which need to be tackled efficiently by the food and supplies department. The above problems set the overall context in which Welfare has been identified as a priority area for e-Governance.

The Welfare sector provides welfare programmes and services to the women in need and distress, the handicapped persons, neglected street children, social security for the aged and destitute through the network of residential care homes and non-institutional services. Besides this the Department also provides avenues of self employment to women, children, and handicapped and creates awareness amongst general public regarding the welfare measures of the Department.

In order to achieve its objectives the Welfare sector has been divided into the following Departments:

- Employment
- Food and Supplies
- Labour
- Registrar Cooperative Societies
- Social Welfare

Employment

The main function of the Employment exchanges is registration/renewal of job seekers, updating/modification of their data, sponsoring the registration to the employers on their requisition. The Directorate of Employment, Delhi neither generates nor provides employment to the people. However, Vocational guidance/assistance is provided to the job seekers in choosing their career

The department has 20 Employment Exchanges, 9 main centers of which 2 cater exclusively to the physically handicapped

Development Goals and Agenda

The major development goals of the department include:

- Registration of job-seekers, sponsoring the registrants to the employers on their requisition
- Forwarding of application to the employers against the vacancies advertised by Central Employment Exchange, DGE&T
- Sponsoring of candidates for apprenticeship/training to employers against a requisition
- Vocational Guidance and career counseling through Vocational Guidance Units
- Collecting employment marketing information data at State Level etc.

Current e-Readiness Status

- Online registration and renewal of profiles of Job seekers
- With a view to provide better services at the door step of the job seekers with a good transparency, computerization of the working of the Employment Exchanges of the Directorate has been launched w.e.f. January 5, 2005. On completion of the project of computerization registration/renewal/amendment and sponsorship as well as information relating to Vocational Guidance, Government policies on different subject, job opportunities and other facilities will be available on line to the job-seekers and the employers.

Employment Department				
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives
1	Employer Registration	G2B	<ul style="list-style-type: none"> Government agencies, department and other private institutions taking Human resources from market rather than routing their requirements through the Employment Exchange thereby creating a shortage of vacancies 	<ul style="list-style-type: none"> Comprehensive and robust web based Recruitment solution to address the following key areas: <ul style="list-style-type: none"> Employers: Registration, Posting of Job vacancies, Searching candidate profiles, Scheduling of candidate interviews, Posting of results Candidates: Registration, Update of profile, Job Search, Online application Other services: Resume builder, Job market trend analysis, Guidance & counseling, Company profiles
2	Job seeker Registration	G2C	<ul style="list-style-type: none"> Supply / demand mismatch between vacancies and Job seekers, with Job seekers being more than the vacancies available 	
3	Career counseling	G2C	<ul style="list-style-type: none"> No proactive interaction of the Employment exchange to market their services and database of skilled manpower in both the private and public sector to attract employers 	
				<ul style="list-style-type: none"> Tie-ups with major private job search engines to publish the database information to companies registered with them

Employment Department- Leading practices	
Leading Practices	<p><u>Employment exchange information system</u> The features of this software include registration of candidates seeking jobs, renewal/ updation of applications, vacancy order of candidates to be booking, preparation of list sponsored retrieval of candidate data etc.</p> <p><i>Employment exchange (govt. of MP)</i> The various modules deployed under this scheme by the state government are</p> <ul style="list-style-type: none"> • Unemployment candidate registration • Job search and matching • Job market trend analysis • Job guidance and counseling • Private employer job posting • Online access to candidate and employer information <p><i>Govt. of Orissa</i> Employment Exchanges Information System, an integrated software for on-line registration of candidates in different employment exchanges of the State, has already been or is being implemented at 10 District Employment Exchanges with functionalities such as on-line registration, preparation of annual list, submission of list names, live-register, provision of renewal, lapsing, transfer of registration cards, generation of statistical reports and returns, ensuring fairness in submission, avoidance of human errors and delay, safe up keeping of data on various activities of Employment Exchanges etc.</p> <p><u>Web portal</u> Web Portal for facilitating online hiring processes for job seekers and to provide a common integration point between various employers and job seekers registered with the Employment Exchanges of the State (with a consolidated Manpower Database)</p> <p><u>e-Learning system</u> Consolidated Web Based System for transferring knowledge and training in various vocational topics, safety issues, safe habits, etc. via a host of interactive tools and multimedia technologies. Initiatives like yuva.com from Karnataka.</p> <p>Case Study</p> <p><u>Employment exchange (govt. of MP)</u></p>

Employment Department- Leading practices
<p>The various modules deployed under this scheme by the state government are</p> <ul style="list-style-type: none"> • Unemployment candidate registration • Job search and matching • Job market trend analysis • Job guidance and counseling • Private employer job posting • Online access to candidate and employer information <p><u>Govt. of Orissa</u></p> <p>Employment Exchanges Information System, an integrated software for on-line registration of candidates in different employment exchanges of the State, has already been or is being implemented at 10 District Employment Exchanges with functionalities such as on-line registration, preparation of annual list, submission of list names, live-register, provision of renewal, lapsing, transfer of registration cards, generation of statistical reports and returns, ensuring fairness in submission, avoidance of human errors and delay, safe up keeping of data on various activities of Employment Exchanges etc.</p> <p><u>Employment Insurance (Canada)</u></p> <p>In keeping with the Government On-Line Initiative of the Government of Canada, the Employment Insurance programme is responding to the needs of Canadians for better, faster and more convenient services on the Internet. It has undertaken a number of service transformation projects to improve the quality, speed and accessibility of service by putting in place a suite of electronic client facing services and tools to automate claims processing in order to achieve the following:</p> <ul style="list-style-type: none"> • Receive high-quality electronic information from clients and businesses over the Internet; • Automate claims processing; • Use electronic payments to the extent possible (Direct Deposit); • Exchange programme information/change key client data electronically (Employment Insurance On-Line Services); • Harmonize Call Centers; and • Reinvest in client service improvements.

Food & Supplies Department

The department of Food & Supplies, Govt. of Delhi, manages Public Distribution System (PDS) in Delhi for regulating production, supply and distribution of, and trade and commerce in, essential commodities with a view to maintain or increase supplies thereof and secure their equitable distribution and availability at fair prices by enforcing the Essential Commodities Act, 1955 and various Control Orders made there under.

Consumer Affairs Wing of the department provides for better protection of interest of consumers by setting up State Commission and District fora for redressal of consumers disputes, as provided under the Consumer Protection Act, 1986.

The department also enforces the Standards of Weights and Measures Act, 1976, and Standards of Weights and Measures (Enforcement) Act, 1985, and rules made under these Acts, for protection of consumers by ensuring metrological accuracy in industrial production & commercial transactions, and mandatory declarations on commodities sold in packaged form.

The public distribution system in Delhi encompass within its fold an estimated 130 lakh permanent residents or 37 lakh households, about 6000 retail outlets of PDS, approx. 100 wholesalers and 15 supply points. The Food & Supplies department of Govt. of NCT of Delhi is called upon to monitor activities of about 15,000 traders outside the public distribution system.

Development Goals and Agenda

- Ensure equitable distribution of essential commodities
- Enforcing especially in the event of market failure, the laws relating to essential commodities in Delhi by formulating and enforcing control orders as may be needed, with a view to maintain and increase supplies of essential commodities and their equitable distribution and availability at fair prices
- Efficiently managing the system of public distribution of essential commodities for which the demand is income inelastic.
- Launching of targeted public distribution system for those households below poverty line (BPL) and Antyodaya Annapurna Yojna for the poorest households
- Annapurna Yojna for impoverished old people above 65 years of age, supplying food grains at the rate of 10 kg per head per month free of cost to those indigent people who are above 65 years of age, those who are destitute and those who are not availing benefits of National Old Age Pension Scheme (NOAPS) or State Pension Scheme
- Providing financial assistance to NGOs engaged in consumer movement and which undertake steps to propagate consumer rights and consumer education through mass media such as press, television etc
- Computerization of Food & Supplies Department: Delhi citizens can access information about the department, including wholesale & retail prices of essential commodities, download various application forms relating to ration cards & other licenses issued by the department from the website Module. By the end of the implementation of this project, computerization of Circle Offices is envisaged; citizens would be able to transact business with the department electronically through Citizens Service Points (CSPs). The total plan outlay for this project in the 10th Five year plan is Rs. 500 Lakhs
- Strengthening of Enforcement and Market intelligence: During 10th five year plan various techniques of pricing research will be introduced so that it is able to analyze critical market challenges to minimize vulnerability by anticipating the scarcity and timely effective planning. The total plan outlay for this activity is Rs. 100 Lakhs. The Market Intelligence Cell of the Department is engaged in data collection and analysis of the market prices of some of the essential commodities, and price list of them are displayed on the website of the Govt. every week.

Current E-readiness Status

- The list of beneficiaries under the Below Poverty Line and Antodya Anna Yojna available on the Web Site

- Bilingual database of Ration Cards of all categories of the Public Distribution System created
- Web based software has been developed to disseminate information on food grains dispatch to FPS from the warehouse of FCI (food Corporation of India). The system enables to find dispatch status of Ration items for various Fair Price Shops. If one knows FPS Number, one can find dispatch status of Rice, Wheat and Sugar for the same. He can also find details of Ration items for APL, BPL, Antyodaya and Annapurna Schemes. The system maintains the information on lifting details of ration items from FCI godowns to Fair Price Shops so that citizens could be provided online information of availability of ration at different Fair Price Shops

e-Governance Roadmap for Govt. of NCT of Delhi

124

Food & Supplies Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1	Supply and distribution of essential commodities	G2B	<ul style="list-style-type: none">- Bogus and multiple rations cards issued to citizens, leading to revenue leakage of subsidies offered in government system- Non-adherence to inspection procedures of physical visits to ration shops to check stocks before declaring the sale open, to check illegal flow of ration to market	<ul style="list-style-type: none">- Public Distribution Information Management System (PDIMS)<ul style="list-style-type: none">▪ Ration Card: Citizen information capture, Physical verification reporting, Issuance of ration card, Management of ration cards<ul style="list-style-type: none">▪ Scheme Monitoring▪ FPS & KOD Management: Registration, Enforcement, Inventory management- Initiative for removing duplicate ration cards and preventing future duplication using IT enabled tools	High	High
			<ul style="list-style-type: none">- Revenue loss to Government due to procurement of subsidized Kerosene from KOD's by citizens having gas connections	<ul style="list-style-type: none">- Application for compiling information related to citizens having house gas connections from various service providers. This information could be used to detect households availing subsidized Kerosene despite having a gas connection- Dispatch of Kerosene oil to be brought under the existing web based tracking software	High	High
					Low	High

e-Governance Roadmap for Govt. of NCT of Delhi

125

Food & Supplies Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
			<ul style="list-style-type: none">- Revenue leakage due to flow of ration meant for Fair price shops to open market- Economic viability of Fair Price Shops as all card holders do not procure ration from these shops	- Business Intelligence tools to extract information on the non-users of ration cards and re-assign the FPS according to it	High	High
				- Process for online updation of stock and sales by Fair Price Shops on a regular basis online through a kiosk or cyber cafe	High	High
				- Information dissemination for creating public awareness through website, phone and other media	Low	High
			- Integration of Election Commission database with F&S to get online information w.r.t. citizen identity for verification purposes	High	High	
			- Integration of Food and Supplies database with the Births and Deaths registration, this would enable proactive addition of newborn members to the ration card database and deletion of name of the citizens from the database in case of deaths	High	High	
2	Ensuring metrological accuracy in industrial production &	G2C	<ul style="list-style-type: none">- Lack of adequate manpower- Awareness to citizens regarding their rights	Information dissemination for creating public awareness through website phone and	Low	High

Food & Supplies Department					
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Feasibility
	commercial transactions, and mandatory declarations on commodities sold in packaged form			other media	

Food & Supplies Department- Leading practices	
Leading Practices	<p>Computerization of the department The computerization of the department to automate the following key processes of the department:</p> <ul style="list-style-type: none"> • Public Distribution system • Procurement of food grains • Creation and maintenance of storage facilities for PDS • Fair price shops details • Implementation and monitoring of various schemes like mid-day meal scheme <p>Computerization of Ration Cards With a view to streamline the issue of ration cards and to prevent misuse of benefits offered under the various schemes, the Government of Maharashtra intends to issue computerized ration cards in the State in a phased manner. The computerization of ration cards will systematize the issue of ration cards and to ensure transparency. A pilot has already been carried out in the State on a pilot basis in Sholapur district. Based on the experience of this pilot scheme, the State Government proposes to extend the scheme of computerization to the entire State.</p> <p><u>Smart cards for ration cards</u> In Kerala, the state government is issuing smart card-based ration cards for monitoring the distribution of supplies through the public distribution system. In a country that is ravaged by pilferage of resources at various points in the system, the use of smart cards can cut down on fraud.</p>

Labour Department

The Labor department provides labor services according to various Labor related Acts. The department has been organized on territorial basis into nine districts. Each district is headed by a Deputy Labor Commissioner who is assisted by Assistant Labor Commissioners and Labor Officers.

The department handles labor grievances, compensations, bonuses and implements acts like those of contract labor, child labor, trade unions, registered factories etc. Industrial disputes are settled by conciliation failing which the matter is referred to the adjudication machinery.

Delhi Shops & Establishments Act is also being enforced for the regulation of working conditions of employees in shops, commercial establishments or public entertainment and amusement places. The Labor Department, Govt. of N.C.T. of Delhi also undertakes welfare activities for the benefit of the industrial workers and their families. The department has been organizing various vocational classes in their welfare centers for industrial workers. The facilities of reading room, library, and adult education, indoor and outdoor games are made available in these centers.

Publishing of Labor Awards online is a scheme proposed under the 10th Five Year plan. The process would be such that soft copies would be obtained from Labor Courts one month from declaration of award by the Commissioner. In cases where complaints need to be posted on the website, the numbers and other details are given. A list of factories under the purview of this department is also available on the website.

Development Goals and Agenda

- Skill formation and development, strengthening and modernization of employment services, promotion of industrial and Mine safety, works education, promotion of self employment, enforcement of Labour laws, Promotion of healthy industrial relations.
- Encouragement of workers' participation in management through Labour Welfare, Crafts men and Apprenticeship Training & Employment Services.

Current e-Readiness Status

- Online registration of Trade Union:
 - Registration of Trade Union
 - Updation of application status
 - Searching for the details for registered trade union
- Online registration of Holiday Home:
 - Requesting of room in Holiday Home of labour department
 - Updation of application status
 - Modifying location no. of rooms etc.

e-Governance Roadmap for Govt. of NCT of Delhi

129

Labour Department					
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality Feasibility
1	Labor related administrative and welfare work e.g. compensations, bonuses, grievances, etc.	G2C	<ul style="list-style-type: none"> Cumbersome procedures and lack of computerization 	Labour Management System <ul style="list-style-type: none"> Online registration of factories, shops and establishments Court Case Management System Online issuance of Recovery Certificates Online filing of certifications under the Shops & Establishments Act 1954 Online Registration for licensing and controlling places of amusement Interconnectivity between department and with its branches via WAN 	High High
2	Formulate and enforce rules and regulations for various entities e.g. contract labor, child labor, trade unions, registered factories, shops and establishments,, etc.	G2C	<ul style="list-style-type: none"> Awareness among citizen regarding their rights 	<ul style="list-style-type: none"> Information dissemination for creating public awareness through their website, phone, media (print, radio, Television) <p>* Refer Note A</p>	Low High

* Note A- Some of the challenges faced by the Department requires policy/infrastructure change

* Note A- Some of the challenges faced by the Department requires policy/infrastructure change

Labour Department- Leading practices	
Leading Practices	<p><u>Scheme Management System</u> Consolidated Web Based System for effectively managing various Employment and Welfare Schemes of Labor & Employment Department, including Child Labor Schemes, Self-Employment Schemes, etc. across the State via a set of status-based workflow, dynamic collaboration tools and interfaces for various participants, including External Agencies and NGOs</p> <p>Case Study</p> <p><u>Swedish National Labour Market Board (Sweden)</u></p> <p>The Swedish National Labour Market Board web site offered services for job seekers, employers and their businesses. In 1995, the Swedish National Labour Market Board launched The Vacancy Bank, where all vacancies reported to the employment offices in Sweden were published on the Web.</p> <p>The vacancies have been supplemented by a range of interactive services to support the unemployed and those seeking a change of employment in their search for new opportunities. In addition to the advertising of vacancies, job seekers are able to upload their CVs so that potential employers can match skills and competences to their vacancies. The service also includes the setting up of a range of databases covering such specialist areas as education, art, photography and the performing arts. These serve the dual purpose of advertising vacancies and the details of job seekers with these specialist skills who are seeking work.</p> <p>Various types of labour-market information, including labour-market conditions in different parts of the country, provides further background information together with information about job content and other details on a range of occupations.</p>

Registrar Cooperative Societies

Cooperative societies are organized for the benefit of members to promote their economic interest by encouraging the habit of thrift and savings among the people. The Registrar of co-operative societies is responsible for the following:

- Registration of the co-operative societies: The form for registration can be downloaded but the same cannot be submitted as the registration requires certain documents for verification
- Audit of the co-operative societies
- Timely election: The election is done on a yearly basis by the Gazetted officers of the Delhi Government
- Arbitration cases: These relate to issues related to settlement of disputes and problems. The Joint and Deputy Registrar also holds a court to resolve these issues
- Recovery of loans taken by the societies from the Banks: In case a society is unable to repay a loan taken by it the RCS office intervenes. A summon is sent to the society. In cases where the repayment is not made after the summons is sent, warrants can be issued against the defaulter.
- Maintenance of Education Fund for the societies: When the audit is conducted for the societies a certain percentage of their profit (2-3%) of the total profits are kept aside as Education fund. These funds are utilized for imparting education to the personnel working in the co-operatives.

Some of the major schemes under the 10th Five Year plan for the department are:

- Strengthening of the Registrar of Corporate Society office: Creation of separate "Arbitration Cell" to handle the arbitration cases to provide quick relief to the petitioners with a provision of officers/staff
- Strengthening and computerization of the RCS office: The Department proposes the preparation of the Software for the 33 Centrally Sponsored Schemes, 9 State Plan Schemes and any other Contingency Schemes started by the Govt. of India/Delhi.

Development Goals and Agenda

- To promote co-operative societies' economic interest through encouraging the habit of thrift and savings among the people
- Strengthening and Computerization of the RCS office is proposed under the 10th Five Year plan
- Provisioning for self-employment opportunities for the weaker sections of the society, providing financial assistance by way of share capital loan, working capital loan and subsidy to strengthen the financial position
- Provide Financial Assistance to New Multipurpose Cooperative Societies of Slum Dwellers for improvement, upgradation and resettlement of JJ Clusters

Current e-Readiness Status

- Cooperative Societies: This application maintains the details of membership, audit, election and arbitration of cooperative societies
- Letter Monitoring: This application is used for the monitoring of movement of letters
- The department also maintains a database on all societies having more than 12 lakh records made operational and dynamically linked to website and updation takes place on a daily basis
- The department also has a range of online services including names of superseded/defunct societies, membership details, detail of society & financial information and daily cause list of cases of this office

e-Governance Roadmap for Govt. of NCT of Delhi

132

Registrar Co-operative Societies Department				
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives
1	Registration of co-operatives	G2B	<ul style="list-style-type: none"> - Lack of updation of data of Cooperative societies 	Co-operative Management System <ul style="list-style-type: none"> ▪ Implementation of workflow management system to automate the various processes for society's registration, verification, amendment ▪ System to track the election process of societies and also review record of societies where elections are due ▪ Online accounts of societies and keeping a track of societies that have not submitted the accounts ▪ Appointment of auditors, tracking and submission of audit results and observations ▪ Grievance redressal system
2	Administrative work related to co-operatives e.g. Timely election, arbitration cases, recovery of loans taken by the societies from the Banks and annual audits	G2B	<ul style="list-style-type: none"> - Lack of trained and qualified manpower - Current database does not preempt tasks to be undertaken and scheduling of these activities. 	Co-operative Management System <ul style="list-style-type: none"> ▪ Implementation of workflow management system to automate the various processes for society's registration, verification, amendment ▪ System to track the election process of societies and also review record of societies where elections are due ▪ Online accounts of societies and keeping a track of societies that have not submitted the accounts ▪ Appointment of auditors, tracking and submission of audit results and observations ▪ Grievance redressal system
				Criticality High
				Feasibility Low

Social Welfare Department

The department of Social Welfare is the nodal agency for implementation of various social legislations and welfare schemes for the welfare, development and rehabilitation of the disadvantaged sections of society. Besides this the department also provides avenues of self employment to women, children, and handicapped and creates awareness amongst general public regarding the welfare measures of the Department.

The services of the department include welfare programmes to the women in need and distress, social security cover for the aged & destitute, programmes for the care and protection of the children through a network of residential care homes and non-institutional services, programmes for the handicapped, financial assistance for physically and socially handicapped and steps towards economic empowerment of women, children, handicapped and aged persons.

Developmental Goals and Agenda

The Development Goals as per the 10th Five Year Plan (2002-2007) include primarily the inclusion of some of the on-going schemes of the 9th Five Year Plan; these schemes consist of collaboration projects with non-governmental organizations, programmes for juveniles and women for residential care and collaboration with voluntary organizations.

Under the 10th Five-year plan, ten new Schemes are proposed which included major programmes of smart card for senior citizen, welfare programme for the older persons and scheme of Bhagidari - new initiatives in social development

Current e-Readiness Status

- About 1.40 Lakh Old Age Pensioners are getting their pension directly through their bank/postal account using ECS (Electronic Clearing Scheme) facility
- Status of payment in respect of old age pension available online
- All 10 district offices have been provided with computer and dial-up networking facility
- Common software for Pay roll and E-courts implemented
- Staff salary is disbursed through ECS system into the employees accounts
- Web based missing child information system having name, age, photo, etc. of missing children from 7 homes is being effectively implemented. Information of about 560 missing children is available online
- Application Software for 11 Financial Assistance Schemes (FAS) for widows, old age pension, etc. has been developed and is being implemented in four districts
- Web based File Monitoring System is running at HQ (Head Quarter) level
- IT education is being imparted to needy women in association with NGOs through the Gender Resource Centers
- Community Technology Learning Center (CTLC) is a joint project with Microsoft for skill development of women belonging to weaker sections for providing them basic computer skills
- Online query on old age pension disbursement
- Online query on other financial assistance disbursement
- Detailed information on the Administrative structure, processes and procedures followed by various functionaries of the Department and information held by them in various forms

e-Governance Roadmap for Govt. of NCT of Delhi

134

Social Welfare Department				
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives
1	Implementation and monitoring of various social legislations and welfare schemes for the welfare	G2C	<ul style="list-style-type: none"> Weak internal regulatory framework for monitoring the cost effectiveness and quality of services provided 	<ul style="list-style-type: none"> Welfare Management System Application development for ICDS/Anganwadi projects with the objective of better monitoring, more effective service delivery and proper financial management. (ICDS services aim to provide supplementary nutrition, immunization, health check up and referral services to children below six years, pregnant women & nursing mothers, non formal pre school education to children (3-6 years), nutrition and health education to women between the age group of 15-45 years) Personnel Information Management system to provide effective services to the employees and ensure optimum utilization of man power (This initiative should be linked to the common initiatives) Budget Monitoring system for better financial system and monitoring the utilization of funds under different
				<p>Criticality High</p> <p>Feasibility High</p>

e-Governance Roadmap for Govt. of NCT of Delhi

135

Social Welfare Department						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
				schemes, expenditure of homes/institutions and check list for time bound sanctions/payments		
				(This initiative should be linked to the common initiatives)		
				Online tendering/procurement system to reduce cycle time and costs, by providing open access to a higher number of participants in the tender process (This would be the state-wide e-procurement application)		
				(This initiative should be linked to the common initiatives)		
				Feedback mechanism for homes/institutes run by the NGOs		
				Development of a database for Stree Shakti program and Gender resource centers to monitor and track the participation and maintain health records		
				Computerization of all home/institutions of the		
2	Development and rehabilitation of the	G2C	– Lack of service orientation in dealing with the beneficiaries of	– Computerization of all home/institutions of the	High	Low

e-Governance Roadmap for Govt. of NCT of Delhi

136

Social Welfare Department					
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality Feasibility
	disadvantaged sections of society and women, children, and handicapped through various schemes and operation of Welfare Homes		<ul style="list-style-type: none"> various homes / institutions set up by the government Bringing down the cost of providing services to beneficiaries in various homes and institutions so that more beneficiaries can be provided services with the limited resources available to the Government 	<ul style="list-style-type: none"> department and maintenance of details of the people in the homes including case history, rehabilitation/restoration measures System for submitting online/ phone applications to avail of various home based services 	
3	Awareness about welfare schemes.	G2C	<ul style="list-style-type: none"> Lack of awareness regarding the various Welfare schemes available to the citizens 	<ul style="list-style-type: none"> Provision of information with respect to various welfare schemes to the beneficiaries through the alternate medium like telephone, media (print, radio, Television) Inter-linkages with departments like Health, education, Family welfare, Urban Development, labour welfare, employment for better co-ordination of welfare activities Sharing of information between the Food and Supplies and Social Welfare Department to monitor and provide services to the beneficiaries under the various schemes like Below Poverty Line and other such schemes 	High High

Social Welfare Department- Leading practices	
Leading Practices	<p>Automation of department Automate the social benefits administration and service procedures of AP Govt. across all stake holding departments and organizations of the Govt. involved in social welfare activities</p> <p>Welfare Portal Web Portal to provide information related to Homes, Shelter Homes, crèche, Women's Hostel, Child health related, vaccination and immunization programmes, vocational training programmes for NGOs, adoption related information. Online registration of NGOs and their monitoring including financial grants.</p> <p>Welfare Statistics Monitoring and Reporting System Monitoring of special benefits provided to SC/ ST, OBC, Women and Child, Old-age, Tribal and Rural.</p>

12.6. Revenue

The main sources of revenue for the State Government are VAT, Excise and District Administration. VAT is the highest revenue earning department of the Delhi Government. The Revenue earning from VAT amounted to Rs. 5,198.45 crores for the financial year 2004-05. Excise Department is the second largest revenue earning department of the Government of Delhi and is one of the three constituents of a Commissionerate, along with Luxury Tax and Entertainment Tax.

The Revenue collected by the Department from the sale of liquor (Excise) amounted to Rs. 858.10 crores; Entertainment tax Rs. 39.01 crores and Luxury tax Rs. 140 crores for 2004-05

Keeping in view the fact that this is the sector that pumps in money to the Government of NCT of Delhi, it is very critical that each penny is properly accounted for and at the same time ensuring that there is no revenue leakage in the system. ICT can play a vital role in enabling this objective in each of the three identified departments in this sector.

District Administration

Delhi has nine districts and 27 Sub Divisions, per district. Each district is headed by a Deputy Commissioner, who has under him an Additional District Magistrate, Sub Divisional Magistrates, Tehsildars and Sub-Registrar.

The District Administration carries out a diverse variety of functions. Some of them include:

Revenue functions

Revenue functions involve maintenance of land records, conduct of revenue cases, carrying out of demarcation and mutations, settlement operations and functioning as custodian of public land. Deputy Commissioners and Additional District Magistrates are Collectors and Additional Collectors as per different Revenue Laws operating in Delhi. Sub Divisional Magistrates are designated as Assistant Collectors and Revenue Assistants and are primarily responsible for day to day revenue work. The subordinate revenue staff consisting of Girdavars, Kanungos and Patwaries are supervised by Tehsildars who are involved in field level revenue activities and mutations.

Issue of Certificates

Sub Divisional Magistrates are empowered to issue various kinds of statutory certificates including SC/ST & OBC, Domicile, and Nationality etc. Registration of Property documents, sale deeds, power of attorneys, share certificates and all other documents which need to be compulsorily registered as per law is made at Sub Registrar's Office which are nine in number. Deputy Commissioners are Registrars for their respective districts and exercise supervisory control over the Sub Registrars.

Election work

Deputy Commissioners are District Election Officers and Returning Officers for Parliamentary Constituencies. Additional District Magistrates and Sub Divisional Magistrates are Returning Officers for Assembly Constituencies and Electoral Registration Officers in respect of Voters' Lists. The District Officers are primarily responsible for conducting Lok Sabha and Assembly Elections. The District Administration is also responsible for maintenance and revision of Voters' Lists, for issue of Voters' Photo Identity Cards (EPIC Cards) and Voters' Certificates

Magisterial functions

Deputy Commissioners, Additional District Magistrates and Sub Divisional Magistrates exercise powers of Executive Magistrates. In this role they are responsible for operating preventive Sections of Code of Criminal Procedure. They also carry out enquiries in cases of unnatural deaths of women within seven years of marriage and issue directions to the Police for registration of case, if required.

Additional District Magistrates and Sub Divisional Magistrates are empowered to conduct enquiries into custodial deaths including deaths in Police Lock Up, Jails, and Women Homes etc. The officers of this department are also expected to act as eyes and ears of the Government and conduct enquiries into all major accidents including major fires incidents, riots and natural calamities etc.

Registration of Marriage

Deputy Commissioners, Additional District Magistrates and Sub Divisional Magistrates are conferred with powers as Registrars of Marriage under the Hindu Marriage Act and Special Marriage Act. This power is ordinarily exercised by the Additional District Magistrates who are responsible for registration and solemnization of marriages.

Relief and Rehabilitation

This department is given the primary responsibility for relief and rehabilitation operations in any calamity whether natural or man-made. Deputy Commissioners' Offices carry out relief operations during flood, fires, crop failures, droughts and other calamities. It is also responsible for coordinating and implementing disaster management plan for natural and chemical disasters and awareness generation programme on disaster preparedness with the assistance of United Nations Development Programme.

The District Administration in Delhi is the de-facto enforcement department for all kinds of Government Policies and exercises supervisory powers over numerous other functionaries of the Government.

At the apex of revenue hierarchy is the Divisional Commissioner who is also the District Magistrate of Delhi and Inspector General of Registration. He is also designated as Secretary (Revenue) and Collector under various Revenue Acts for functions like maintenance of land records, conduct of revenue cases, carrying out of demarcation and mutations, settlement operations and functioning as custodian of public land.

Development Goals and Agenda

- Making Revenue Administration more effective and responsive to the public
- Simplification of procedures to obtain key certificates like Marriage registration, SC/ST etc.
- Provide immediate relief to people affected by natural calamities
- Computerization of Registration and Tehsil Offices

Current e-Readiness Status

- Computerization of back office of Dy. Commissioners and SDMs.
- Computerization of land records through Land Record Computerization (Indraprastha Bhulekh) with the following functions:
 - Digitization of all records of agricultural land completed and computerized
 - ROR (Record of Rights) being issued
 - Mutation module embedded with bio-metrics security features
 - Issue of computerized ROR from District Office
 - Khatauni data of all villages made available on web
- Computerization of preparation of 11 kinds of certificates through (e- Dastavej) Registration of Documents
- Computerization of Sub-Registrar Offices
- Computerization of Recovery of arrears of land revenue
- Certificate issue management system (e-PramanPatra): Single point contact window for all kinds of certificates. Further people can find the status of their application using Internet, Telephone (IVRS) or cellphone (SMS)
- Software developed for monitoring Prime Minister Rozgar Yojna, Swarna Jayanti Sahari Rozgar Yojna
- Software developed for issue of NOC for land transaction processing
- Setting up of information kiosk and 'Suvidha Kendra' for providing all services of DC offices at one location
- Online Submission of Monthly Reports by Districts

Some of the application modules include:

- E- Paramanpatra
- Delhi on-line registration information system
- Letter monitoring information system

- Marriage Registration information system
- Court Case Registration System
- Delhi Land Record Computerization System
- Prime- Minister Rozgar Yojana
- Sawaran Jayanti Sahari Rozgar Yogana
- Pay- DDO 2005
- INTRA DELHI (for Pay Slip)
- NOC (No Objection Certificate)
- Requisition and Notification Module (LAC)
- Requisition and Notification Module (L & B)
- Prohibited Property
- Index Registration Information System

e-Governance Roadmap for Govt. of NCT of Delhi

141

District Administration						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1	Registration of Property documents, Sale deeds, Power of attorneys, Share certificates, Certificates (SC/ST & OBC, Domicile, Nationality, marriage, etc.)	G2C	<ul style="list-style-type: none">As per Government procedures physical visit of citizen is mandatory to obtain the certificates	*Refer Note A	Low	High
2	Issuance and maintenance of land records Khatauni, Jamabandi, Khasra Girdawari	G2C	<ul style="list-style-type: none">Non existence of digitized old records (pre-computerization of DC office) pertaining to land, it is therefore difficult to track history of ownership and transfer trailAscertaining Khasra numbers of properties in the absence of latest GIS maps co-relating Khasra numbers to current property locationsLineage of the property is not available as only there is no software to match and query the information available on land records.	<ul style="list-style-type: none">Digitization of records which will also help in creating an advanced search software for matching and retrieving property details on key parameters like house number, street number etc.GIS mapping of property in Delhi and superimposing it onto 1908 Khasra maps to co-relate Khasra numbers to exact properties. (This should be the part of common initiative of "GIS Mapping" of various departments)	High	High
						Low

* Note A- Some of the challenges faced by the Department requires policy/infrastructure change

e-Governance Roadmap for Govt. of NCT of Delhi

142

District Administration				
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives
3	Preparation for disasters in case of various calamities	G2C	<ul style="list-style-type: none"> - Absence of a comprehensive plan in case of disastrous situations 	<p>Comprehensive software for disaster management:</p> <p>Though the disaster management plan exists for Delhi, there is no comprehensive information source available, that captures tracks and updates various resources available in form of people, material, infrastructure etc. in the event of disaster. To take care of the same, a Comprehensive database needs to be created which would capture at a minimum:</p> <ul style="list-style-type: none"> ▪ GIS maps detailing critical emergency facilities like hospitals, dispensaries etc. ▪ Hospital services with details of doctors, capacities, services etc. ▪ Comprehensive database of all doctors in the state with contact numbers ▪ Contact details of key disaster management team ▪ List of emergency services with detailed plans to be activated ▪ Evacuation spots with capacities ▪ Road maps with alternate way ▪ Inventory of food and other key resources / equipments across locations etc.
				<p>Criticality High</p> <p>Feasibility Low</p>

District Administration Department- Leading practices

Leading Practices

Integrated Land information system (AP Govt)

The vision of ILIS is to help in integrated management of land information through a comprehensive, on-line Land Information System with the distinct features of financial self-sustenance, auto-updation, transparency and accessibility, while providing the services to its users in an integrated, cost-effective and efficient manner.

Bhoomi (State of Karnataka)

BHOOMI, the land records management systems is the first e-Governance project successfully implemented for the benefits of the common man, jointly by the GoK & NIC, Karnataka. It has been providing service to more than 70 lakh farmers of Karnataka since the last 4 years. BHOOMI has become the model for replication in many other States. It has received wide spread recognition by public and also won international award (Sliver of CAPAM 2002)

"Bhoomi" is very comprehensive software designed by NIC, Bangalore. This software provides for printing of land records as and when required. It incorporates process of online updation to ensure that the RTCs provided to the farmers are in sync with the time. The manual land records in operationalised taluks have been declared illegal. All the mutations to the land records database are done on the computer itself so as to ensure that data on computer remain current with time.

It incorporates the state of the art bio-logon metrics system from Compaq, which authenticates various users on the Bhoomi software on the basis of fingerprints. This ensures that no body can hack the system by imitating other users. The replacement of password security system by fingerprint authentication system would go a long way to ensure those databases are free from any hacking and that the non-repudiation system is in place. This software also has the provision of scanning of original mutation orders of the revenue inspector (who is the authorized person to pass orders in the mutations in the field) and notices served on interested parties. Both documents are scanned to ensure that not only responsibility can be fixed on Officials by showing the original documents signed by them but also to ensure that the interested parties do not claim in the court that they were not served with the notice before effecting the mutation. The software enables the administrators to generate various reports based on type of soil, land holding size, type of crops grown etc. This information would enable administrators to take informed policy decision.

Computerization of Land Records and land maps (As part of Land Online Application) (Chattisgarh)

Computerization of land records and land maps which helps to provide clean, authenticated copies of land records to farmers. Online mutation is also implemented. Computerization of farmers' loan passbooks and creation of Village databases based on GIS is also a part of this initiative.

CAMS (Collectorate Admin and management system)

Automated system to take care of other citizen services like issuing of certificates related caste, domicile, marriage, arms license etc at collectorate / tehsils

Excise, Entertainment and Luxury Tax

The Excise, Entertainment and Luxury Tax department is the second highest revenue (Rs. 950 Crores in 2005) collecting department of the Govt. of NCT of Delhi, being next only to Trade & Taxation department. The Department controls and regulates the trade of liquor, intoxicants, and narcotics in Delhi and discharges its responsibility of making safe liquor available to the consumers. The Entertainment function of the department entails covering Cinema Halls and Cable TV operators under its purview. Hotels with rent above Rs.500 are also covered under the department purview; currently 700 hotels are registered with it for Luxury tax.

Development Goals and Agenda

The Department aims to improve performance by strengthening the distribution network of liquor, plugging the leakages, widening the tax network and taking effective enforcement action. Some of the major schemes of the department under 10th five year plan are:

- Automation of Excise, Entertainment & Luxury Taxes Department : With a view to provide modern and efficient system of office working, the department initiated the process of computerization in 9th Five Year Plan, which is proposed to be continued during the 10th Five Year Plan
- Strengthening of Excise, Entertainment & Luxury Tax Department: Measures to strengthen the Excise Department
- Excise Control Laboratory: The Excise Control Laboratory analyses samples of liquor, medicinal preparations, spirit and drugs being imported and supplied in Delhi. Under the 10th five year Plan a provision has been made for training and upgradation of staff in learning new and emerging analytical tools and skills at all levels.
- Excise Intelligence Bureau: The Excise Intelligence Bureau of the department conducts raids and inspections to detect and curb the supply of unauthorized and spurious/illicit liquor apart from intelligence collection with reference to interstate smuggling of liquor, boot-lagers and peddlers

Current e-Readiness Status

Following is the current Status of Automation in the department:

Excise Application software containing 14 modules is operational, which includes the following modules:

- Administration
- Litigation
- Permits
- Accounts
- Vigilance
- Care Taking
- M&TP
- IMFL
- Hotel Club & Restaurant
- Luxury Tax
- Excise Int. Bureau
- Control lab
- Country Liquor
- Entertainment Tax
- Tax collection is directly updated on department's server from 30 branches of SBI
- Dynamic website and Kiosks showing the various licensees, their stock positions as on date, cinema halls and cable lists
- Revenue of Entertainment and Excise is being directly collected by SBI counter at the department
- Import Permit for L1 and Transport Permit for L4, L19 and L15 have been computerized.
- Renewal of Licenses of L1, L2, L52, L53, L49, L4, L19 and L5 has been automated
- Integrated Luxury Tax collection into the existing EMIS application for collection of duties in consultation with SBI

- Touch screen kiosks installed for facilities like TR, EVC, and Stock Position of the brand size and purchased order request status

e-Governance Roadmap for Govt. of NCT of Delhi

146

Excise					
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality Feasibility
1	Issuance of liquor licenses, Transport permits, Import permits	G2C	<ul style="list-style-type: none"> Tedious and time consuming process Misuse of Import and Transport Permits 	<ul style="list-style-type: none"> Online issue of Transport Permits, Import Permits and No Objection Certificates (NOC's) Online issue of L20 and L49A licenses after making required payments through the online payment facility Online issue of NOC to small theater groups, approval for organizing music and dance programmes at invitee programmes 	Low High
2	Enforcement of smuggling/sale of unauthorized/illicit liquor and regulating trade of liquor	G2G	<ul style="list-style-type: none"> Sale of spurious/illicit liquor and unauthorized sale of liquor 	<ul style="list-style-type: none"> Sharing of information between Trade & taxes, police, tourism and other departments for enforcement, verification & checking pilferage 	High High
3	Payment of Entertainment & Luxury Taxes, Excise duties and fees and revenue generation	G2C	<ul style="list-style-type: none"> Access channels for citizens for payment Evasion of entertainment Tax in Cinema Halls 	<ul style="list-style-type: none"> Revenue Management System Payment of taxes Excise / Entertainment & luxury Tax through the payment gateway Development of a system under which all the cinema halls in Delhi shall submit show-wise details online to the department within half an hour of start of show. This information should be used by field inspectors to monitor evasion of Entertainment Tax 	High High Low High

Excise Department- Leading practices

Leading Practices

Excise Information management system

It consists of two major modules

- Liquor management and movement across barriers
- License module

Wireless Liquor inventory control

Track liquor inventory usage automatically on a real time basis by using RFID tag on every liquor bottle. It not only helps to manage inventory by telling you the usage but also tells you the information about the brand and other specifications of the liquor bottle. RFID tags have been implemented on a pilot basis by some of the retail outlets in US to achieve the advantage of smoother supply chain, intelligent stock replacement and also to prevent shop lifting. RFID tags are a costly affair and whether the high investment on them is worth to gain the requisite benefits is still to be proven.

RFID technology

Treasure Island (TI), a Las Vegas hotel and casino, has installed a system utilizing RFID to track the amount and type of liquor its bartenders pour. The new system, the Beverage Tracker, was supplied by Capton, a San Francisco-based provider of liquor-monitoring technology. The system has been in operation at two of the hotel's bars for the past month and will soon be added to two more.

The Beverage Tracker consists of RFID-enabled liquor spouts, an RFID interrogator (reader) and software. The spouts, which TI employees attach to every liquor bottle, contain a battery-powered 418 MHz RFID tag and a measuring device. Whenever a bartender pours a drink, the tipping of the bottle turns on both the tag and the measuring device, allowing the spout to measure the volume of liquor poured (in ounces) before the employee tips the bottle back up. The tag then transmits that information to the interrogator's antenna, attached to the ceiling above the bar.

The spout's tag has a maximum read range of up to 100 feet from the antenna. It transmits not only the unique identification number of its microchip, but also the brand and size of liquor bottle to which it is attached, as well as the amount of liquor poured. All of this data is transmitted in real time to the receiver linked to the bar's existing computer network via a wireless Internet connection. The time of the pour is recorded by the time the data reaches the computer network, about one second after the liquor was poured.

"Typically, the return on investment is as short as six weeks," says Capton CEO Scott Martiny. Although prices range widely depending on the size of the bar, he says, the system generally runs between \$10,000 and \$20,000. **The spouts can be cleaned when a bottle is emptied, and can be reused for up to three years**, Martiny adds. **Staff at Treasure Island had to be trained how to install and clean the spout.**

Data such as the type and quantity of liquor contained in the bottle is entered when a bartender first attaches the spout to a bottle. The spout can then

Excise Department- Leading practices

be reused on another bottle of the same size and liquor without having to re-enter the data. Martiny says TI expects a \$90,000 return on investment opportunity per year.

Liquor shrinkage amounts to a \$7 billion problem each year in the United States, Martiny explains, resulting from bartenders over pouring, undercharging or failing to charge for some drinks, as well as the disappearance of the bottles themselves. The Beverage Tracker not only allows bar managers to determine when a bartender is over pouring or undercharging, but it also can help with inventory management by displaying which bottles have been emptied and require replacement. Moreover, the system can facilitate the billing of banquets by documenting how much liquor was poured at a particular event. Capton says the Beverage Tracker has been installed at about 100 different hotels, resorts, bars, stadiums and other locations worldwide.

Trade and Taxation

Department of Trade & Taxation, Government of NCT of Delhi is responsible for collecting commercial taxes from registered dealers of NCT of New Delhi. The primary responsibility of Department of Trade & Taxation is to administer VAT Act and Central Sales Tax Act of 1956. Department of Trade & Taxation controls around 600,000+ dealers across Delhi. They also monitor the movement of goods in and out of Delhi as part of administration of VAT and CST Act.

Development Goals and Agenda

- Develop a user friendly IT solution, based on the emerging trends in IT to enable the Department of Trade & Taxation, Govt. of NCT of Delhi to have a better control of its activities and improve efficiency
- The fundamental objective of Computerization of Delhi VAT is to ensure that the VAT regime is implemented and administered in a manner that achieves the policy objectives of the regime
- Is consistent with the VAT legislation and rules
- Increase the Tax payers base by securing the more reliable source of revenue which will increase in line with Delhi's population growth
- The initiative has also been designed with a view to reducing the costs associated with the administration of the VAT regime via a move to a 'self assessment' system.
- Increase the efficiency in the collection of tax by streamlining the process of return filing
- Effective utilization of organization resources which can be achieved by having an Integrated Information System

Current e-Readiness

- One of the first in the country to be fully wired connecting offices of all VAT officers right up to office of Commissioner, VAT
- The process of registration, filing and processing return, details of taxes deposited, issue and receipt of forms, etc. have been fully computerized

The following modules of DOST application are fully implemented:

- Dealer Information System
- Tax Accounting System
- Return Processing System
- Forms Control System
- Resource and Inventory System
- Enforcement Information System
- Recovery Enforcement System
- Personnel Information System
- Assessment Information System
- Law and Judicial System
- Individual Running Ledger
- Management Information System

Online Services

- Individual dealer can view the Tax deposited by them
- Dealers can know their TIN
- Dealer can view details of statutory form issued to them
- Monthly & quarterly return defaulters views

e-Governance Roadmap for Govt. of NCT of Delhi

150

Trade & Taxation						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1	Core services <ul style="list-style-type: none">- Registration, amendment and cancellation of Dealers- Filing of returns by dealers- Processing of refunds in case of excess tax- Issue of forms to the dealers	G2B	- Importing the existing data, which is in the paper form, into the new system	Dealer Information System (DIS) <ul style="list-style-type: none">- DIS handles all the relevant information about the dealers that are required for the registration under DVAT. DIS deals with three major functions, which are described below –<ul style="list-style-type: none">- Registration of the Dealer- Amendment in Registration- Cancellation of Registration	High	High
			- Automatic processing of returns with correct information and assessment of erroneous returns	Return processing system <ul style="list-style-type: none">- RPS to handle the return filing of the dealers which can be monthly, quarterly or half yearly.	High	High
			- Coordination with the banks to release the refund as soon as the notice is generated	Refunds <ul style="list-style-type: none">- Refunds take care of processing the extra tax paid by the dealers and making sure that it is paid with interest in case of delay	High	High
			- Non existence of an efficient network for smooth data access, transfer and cross-referencing	Form Control System <ul style="list-style-type: none">- Form controls release forms for filing of returns to the dealers in a controlled and automated way	High	High

e-Governance Roadmap for Govt. of NCT of Delhi

151

Trade & Taxation						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
2	Critical services - Auditing and assessing the dealer for authenticity - Enforcement of notices and recovery of pending tax	G2G	- Lack of highly scrutinized process to check for authenticity of the information furnished by the dealers	- Dealer Audit & Assessment The module will help to automatically assign teams for auditing and assessing any information that is furnished by the dealer.	High	Low
			- Lack of automated system to enforce recovery of pending taxes in lieu of the refunds being claimed by the dealer	- Arrears and recovery Automatic adjustment of any pending recovery against the dealer to the current refund that he is claiming		
3	Complementary services - Providing service to the dealer to object and appeal to the court for any decision taken by department and ask for an explanation	G2B	- Cumbersome process for dealers to file an objection and then get a hearing and decision at the fast pace	- Objection and Appeal This module will help in easy filing of objection by the dealer and keeps online track of the cases	High	Low
4	Helpdesk and support services - Provide support services to cater to the queries of dealers about the various processes	G2B	- Absence of online helpdesk for solving the queries pertaining to core services provided	Online Helpdesk & Support - Online portal to help dealers know about the various functioning of the department - Personal login for dealers to know about the current status of the applications submitted by them and the previous transactions performed	High	High

Trade & Taxation Department- Leading practices	
Leading Practices	<p>Enforcement and check post management module (As part of Integrated Boarder Check Posts Application)</p> <p>Objectives To ensure compliance with commercial tax laws, curb tax evasion, and improve collection efficiency.</p> <p>Scope:</p> <ul style="list-style-type: none"> • Capture information regarding raids • Generate MIS reports for effective monitoring of raids • Identify defaulter vehicles at check-posts • Capture information on declarations received from dealers / transporters at check-posts • Segregate the goods transported circle-wise and dealer-wise • Reconcile the details of goods and declarations furnished at check-posts • Reconcile the details of goods and declarations furnished at entry check posts with the details furnished at exit check-posts • Issue gate passes and transit passes to vehicles at check-posts <p>eFiling</p> <p>Filing of Tax Returns, Tax Payments and refunds online</p> <p>e-Registration</p> <p>Registration of Dealers and societies online</p> <p>TMIS</p> <p>MIS providing real-time data on consignment status to all registered dealers through TINSXYS and maintenance of records</p> <p>Case Study</p> <p>Online Tax system (E-taxation) for Internal Taxation Service, Chile</p> <p>The Internal Taxation Service of Chile is responsible for the collection of both individual and corporate taxes. In 1998, it launched a new online tax service to replace its manual system for filing tax returns. The new service was implemented using Oracle's Internet-based technology. It went through two phases. The first phase involved placing taxpayers' information online so that the taxpayers could find information there rather than visiting their nearest office or calling for a printed document. In the second phase, the web site was made interactive. Individuals were then able to check their tax status and file their taxes online. The technological platform created by the Internal Taxation Service can streamline the tax-filing and information process while maintaining reliability. The system could also be expanded painlessly to meet projected growth.</p>

12.7. Support and Administration

The Support and Administration Sector is an enabling sector to the development of the State with reference to e-Governance. The Departments under this sector are aligned towards a better overall functioning of the other Sectors and would enable a more efficient functioning of the entire administration of the State. Administrative Reforms, Information Technology and UTCS form part of the prioritized departments for the sector.

Administrative Reforms

The mission of Department is to act as a facilitator, in consultation with Government of India, Departments of Delhi Government, its Autonomous Bodies and Undertakings etc. to improve Government functioning through administrative reforms in the spheres of restructuring the Government, process improvement, organization & methods, grievance handling, modernization, citizens' charters, award scheme and best practices.

The Administrative Reforms Department is responsible for performing the following activities:

- Administrative Reforms
- Work Study
- Re-organization of department
- Organization & Method
- Office Inspections
- Redressal of Public Grievances
- Good governance activities
- Right to Information Act(s)
- Secretariat functions of Lokayukta Office
- Secretariat functions of PGC
- Incentive schemes for officers and staff in the field of Administrative Reforms
- Conducting of departmental tests/examination about O&M, service matters etc.
- Monitoring of punctuality in attendance and surprise checks
- Empanelment of Consultant for projects & studies concerning administrative reforms
- Nodal agency for Citizen Charters
- Business Process Re-engineering
- Acts as the Nodal agency for implementation of Delhi Right to Information Act

Development Goals and Agenda

The Administrative Reforms Department aims to facilitate the pursuit of excellence in governance through:

- Improvements in Government structures and processes
- Economy in Government expenditure through conducting work studies
- Citizen-friendly initiatives including redressal of public grievances
- Dissemination of best practices
- Simplification of procedures
- Implementation of Delhi Right to Information Act

Current e-Readiness Status

- Right to Information Act website: The 17 manuals of each of the departments as mentioned in the RTI Act 2005 have been uploaded. The complete information of the applicant, SPIO, fees, type of questions, date of receipt of applications, time of disposal and the status of the application can be viewed online
- Grievance redressal through Delhi online: Online application to lodge, check status and send reminders with respect to grievances / queries by citizens
- Information Dissemination through the website of Administrative Reforms and other departmental websites

e-Governance Roadmap for Govt. of NCT of Delhi

154

Administrative Reforms						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1	Government Departmental checks and controls, policy making, re-organization, process re-engineering e.g.	G2E, G2G	– Lack of adequate channels for submission of application with respect to RTI	– Online submission of application by the citizen with respect to Right to Information Act.	High	Low
	– Good governance activities e.g. Citizen Charters		– Proactive information dissemination to citizens and seeking active feedback from citizens through interactive portal / call centre / Citizen Service Bureaus to be in-turn fed back to the concerned departments for action.	High	High	
	– Administrative Reforms Office Inspections e.g. monitoring of punctuality in attendance and surprise checks					
	– Secretariat functions of Lokayukta Office and PGC					
	– Right to Information Act(s)		– Inadequate capacities to support Government and department wide initiatives in the area of Government process reengineering, simplification of procedures and automation of processes	<i>*Refer Note A</i>		
	– Conducting of departmental tests/examination about O&M, service matters etc.					
2	Administrative functions of the Administrative Reforms department e.g. recruitment, projects & studies concerning administrative reforms	G2E	– Inadequate capacities to support Government and department wide initiatives in the area of Government process reengineering	<i>*Refer Note A</i>		
3	Public grievances handling and redressal	G2C	– Inadequate systems and procedures to support Citizen Grievance redressal. Further ensuring the grievances of the citizens are acknowledged and forwarded to concerned	– Grievance redressal system as a part of the Citizen Relationship and Grievance Management System (CRGMS) with Call Center which is a state-wide common initiative.	High	High

* Note A- Some of the challenges faced by the Department requires policy/infrastructure change

Administrative Reforms				
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives
			departments and are adequately responded to the satisfaction of the citizen	<p>The existing Grievance redressal system could be improved upon with advances features like:</p> <ul style="list-style-type: none"> Escalation Sorting of Grievances on field level information Improved classification and grouping of grievances Monitoring and classifying Quality of settlement of grievances Grading of departments / officers on time taken to respond, quality of responses, escalations required to respond and other similar parameters to ascertain accountability, decrease turn around time and improve quality of settlements <p>(This initiative should be linked to the common initiatives)</p> <p>Online Discussion Forums This website would provide discussion forums for collaboration and knowledge management. Citizens and employees can post questions / inquiries which will be answered by the experts from the respective departments. This</p>

Administrative Reforms						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
				website can be eventually be integrated into the knowledge management infrastructure for each sector and will contain services which will help transfer of information and knowledge and enable the creation of a knowledge based society.		

Administrative Reforms Department- Leading practices

Leading Practices

Balance Scorecard in government sector

Local Government: City of Charlotte, North Carolina.

In the past, Charlotte, North Carolina measured government efficiency and effectiveness through the typical means of setting objectives and tracking performance of these objectives. However, the city found this approach limited for strategic planning. In response, they incorporated the BSC to transform its mission and strategy into concrete objectives and measures. The BSC provides a comprehensive view of the City's five focus areas (Community Safety, City-Within-A-City, Economic Development, Transportation, and Restructuring Government). These goals are balanced with another four perspectives: customer satisfaction, financial efficiency, internal processes, and learning and growth. The scorecard monitors progress on the bottom line, tracks progress on customer satisfaction, and evaluates organizational capacity building. In 2000, the city of Charlotte implemented measures for each of the nineteen objectives on the scorecard, creating a "dashboard" of the achievement across the five focus areas and the four perspectives. Each business unit has a business plan and a scorecard linked to and supported by each of the objectives of the corporate scorecard. For example, community safety has the objectives of reducing crime and increasing the perception of safety. Following the BSC has improved the clarity of strategic priorities and provided concise measures. The city conducts surveys to measure customer satisfaction, assesses its bottom line by comparing its costs to other cities, evaluates its administrative processes by using activity-based-costing analyses, and directs attention to the human capital of its employees by polling employees to see if they believed they had the necessary skills and resources to do their jobs. The reforms were designed to connect customer satisfaction with well-run departments and basic performance goals.

An application of the BSC to public agencies is particularly appropriate for complex, transparent, and mature organizations with diverse stakeholders. To be effective, the strategic planning process should be adapted to the particular needs and goals of each organization to identify appropriate perspectives. In general, however, it would include four: financial, citizen service, internal work processes, and learning and growth of employees. Pressures for increased financial efficiency affect public agencies, in both developed and developing countries. In fact, fiscal crisis may provide the public and politicians with the political will to push for reform. An advantage of the BSC is that reform does not end with increased efficiency, regardless of organizational mission and public needs. The strategic process of creating the BSC would attempt to reform public organizations so that they would better meet the needs of the citizens and the missions of their agency. In terms of internal work processes and human capital, the BSC has the potential to increase institutional capacity. By creating a more comprehensive overview of the agency, the BSC has the potential to encourage more long range planning, create more well-rounded objectives, and provide taxpayers with a clearer vision of where, how and what their taxes are being spent. Despite the promise of reform, the BSC is not a panacea. Successful implementation is likely to be limited to complex, mature and transparent public agencies.

Grievance Redressal System

Web Based System to accept complaints from citizens on various services provided by the State Government and also to track the status and progress made on these complaints. The application should automatically route complaints to the appropriate Departments, should allow easy retrieval of the

Administrative Reforms Department- Leading practices

Aggregate Data (at the ward, zone and city-wide levels) to show which areas are experiencing what difficulties and should remove various bottlenecks in complaint filing and routing.

(Government of Punjab)

Provides a single interface to the public to relay their concerns or grievances effectively and conveniently to government. Citizens being one of the key stakeholders, it is important for government to provide a channel for obtaining feedback on the services delivered and for continual improvement. The features available from this service include the following:

Inbound receipt

- Multimedia based lodging of complaints (phone, internet, email, drop box, post)
- Routing of complaints to appropriate departments
- Transaction status tracking (in process or resolved, etc.).

Outbound response

- Multimedia reporting to public of resolutions or actions taken
- Performance reports by departments tracking progress made in resolving grievances.

Value to the Citizen

- Choice of multiple delivery channels to relay grievances
- Accessibility and convenience offered 24X7
- Technology-literate citizen

Value to the Government

- Greater government visibility and transparency to public
- Continuous improvement on quality of services rendered
- Capture of popular issues and public concerns for government to address
- Enhanced perception of being a “caring” and highly IT savvy government.

Information Dissemination system

Official Website of State Government brings about considerable improvement in processes of information dissemination. Besides a host of government information, policy & procedures, tenders and forms, the Portal also aims at providing services such as payment of utility bills, filling of various kinds of returns, etc.

Union Territories Civil Services (UTCS)

Training is an important activity which facilitates better productivity and human resource development. The Directorate of Training (UTCS) is an apex-training center with the primary function to impart Foundational Training to UTCS Probationers. Besides this, it also imparts training to all the officers/officials of Govt. of NCT of Delhi and its all local and Autonomous Bodies. UTCS aims at strengthening and expansion of various Government department personnel, probationers of states civil service and modernization of the infrastructure facilities to provide a responsive administration to the public. Presently the trainings comprises of service related matters and changes in Acts/ Policies of the government.

Development Goals and Agenda

The major developmental agenda for the department under the 10th Five Year Plan are:

- Establish itself as the apex training institute of Government of Delhi with state of the art technology and infrastructure
- Strengthening of Administrative set-up of the directorate and up-gradation of academic facilities
- Upgrading the existing training infrastructure of the Directorate

Current e-Readiness Status

Departmental Website provides the following features:

- Facility for Online registration for departmental / foundation courses
- Course calendar for various courses offered by UTCS

Union Territories Civil Services (UTCS)						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1	Impart training to all the officers/officials of Govt. of NCT of Delhi and its all local and Autonomous Bodies on service related matters and changes in Acts/ Policies of the government and Foundational Training to UTCS Probationers	G2E	<ul style="list-style-type: none"> – Updation of content and training material not undertaken on a periodic 	<ul style="list-style-type: none"> – Learning Management Systems (LMS) / e-Learning Institutionalize Learning Management Systems (LMS) / e-Learning for all learning and trainings. The objectives of Learning Management System would be to: Collaborative construction of knowledge using training infrastructure and technology Development of e-Learning strategies and the deployment of self paced learning technologies Ongoing integration of learning and working in order to close the gap between formal education and professional practice Creation of a repository of knowledge that can be shared across the Government using appropriate technology and infrastructure 	High	High
			<ul style="list-style-type: none"> – The existing setup has limited focus on the promoting & building skilled manpower for e-Governance initiatives. There is limited focus on imparting training in the field of e-Governance and is more focused towards Administrative and Entrepreneurial training within the State 	<ul style="list-style-type: none"> – Setting up infrastructure for IT enabled learning with private partnerships – Introduce courses focused on computer basics fundamental, program management, e-Governance and other related topics 	High	High

			<ul style="list-style-type: none"> - Inadequate capacities with respect to permanent core faculty - Training is usually not given its due importance by the other departments, as Training is not a part of the career progression plan for the employees 	*Refer Note A		
--	--	--	---	---------------	--	--

* Note A- Some of the challenges faced by the Department requires policy/infrastructure change

UTCS Department- Leading practices

Leading Practices

Learning Management system

Consolidated Web Based learning management System for transferring knowledge in various Subjects like and for facilitating various Courses & exams, Integrated Skill Development Trainings and other trainings to Cadres of various Sector via a host of interactive tools and multimedia technologies

Knowledge management system

Collection of processes that govern the creation, dissemination and utilization of knowledge base (comprising of facts, rules, models and concepts that defines the day-to-day decisions made at every level) of the State Government to various Departments and Agencies.

Workflow and Knowledge Management System for Secretariat Departments (Chattisgarh)

Objectives: To streamline and automate Secretariat workflows to improve the productivity and quality of decision making in file disposal; To streamline documentation and document management by replacing paper-based documents with documents in electronic form. Expected benefits include

- Reduction in time taken for file disposal, support for prioritization of work
- Automatic notifications and reminders, improved consistency and quality of work through knowledge management support
- Increased trace ability and accountability

Scope:

- Creation of electronic files from incoming correspondence, assignment of unique file numbers; maintenance of registers
- Movement of files based on established workflow rules. Support for cross-department workflow where required
- Creation of a knowledge base and central repository of files to support workflow, which will provide access to a similar previous files / precedents, attaching relevant precedents and forwarding for further processing
- Access to other related information resources such as Acts, rules, Gos, etc
- MIS for monitoring the efficiency of file disposal; tracking the status of files, etc
- Security, confidentiality requirements to be addressed

Reach when fully implemented – All Secretariat departments, Approximately 860 employees belonging to Classes 1, 2, and 3.

(Punjab Government)

Data Warehousing & Knowledge Management System:

- Transactional systems running on RDBMS platforms capture on-line, operational data.
- OLTP Systems are not geared for data analysis or data modeling; Ad-hoc queries, done on the fly, in a point and click mode cannot be done.

UTCS Department- Leading practices

There is a strong need for a system that is an orderly and accessible repository of known facts and related data that helps users make more informed, fast decisions through the analysis of key trends and events that affect administration / service to citizens. In this system, users spend less time finding and accumulating data, and more time in analyzing the information thus leading to better decisions.

Value to Government:

All the analytical inputs derived from transaction data, for policy making will be available whenever required.

13. e-Governance blueprint & architecture

E-governance being the application of information and communication technologies to transform the efficiency, effectiveness, transparency and accountability of informational and transactional exchanges within government, between govt. and govt. agencies of National, State, Municipal & Local levels, citizen & businesses, and to empower citizens through access & use of information.

Some key benefits that are achieved through e-Governance are improved quality of service to citizens through information broadcast via various media like portals, secure internet gateways etc.

Information technology can be used effectively to achieve the vision in light of the business imperatives. Key IT imperatives for e-Governance are:

- **Adoption of standards and policies for various technology components**
- **Shared database across multiple departmental applications**
- **High reliability on hardware and communication**
- **Training department employees on various technologies**
- **Increased IT investments across multiple levels of governance**

In order to achieve the above benefits through an optimal application of ICT infrastructure, the overall framework for e-Governance needs to ensure that the architecture components are extensible and scalable to adapt to the changing environments. e-Governance frameworks are increasingly moving towards centralized architecture where the government employees are able to access the applications over a secure Intranet using browser as their front end and citizens and businesses over internet.

13.1. Objectives & Guiding principle

- Citizens, businesses and other entities of Government should be able to interact with Government "When and Where" they want
- Delivery of Government services to citizens and businesses through varied access channels like Internet, Telephone, Kiosks, Call center, Citizen Service Bureaus etc.
- Service interface to citizens rather than Department interface
- The e-Governance architecture blueprint must be able to handle all requirements of various departments and agencies of Government of NCT of Delhi and should evolve over years to incorporate the changing needs and requirements of each of these departments and agencies
- Common components of Delhi Government's IT infrastructure should be provided in a shared fashion to all departments and agencies
- Improve the experience of citizens and other stakeholders interacting with Delhi Government

To achieve each of the above mentioned objectives and guiding principles it is important to arrive at an e-Governance blueprint that integrates across departments and is built on open standards and common architecture. These standards will allow for interoperability but in itself will not answer the concern of application integration. The big challenge therefore is to ensure that all IT implementations are in line with the overall e-Governance blueprint of the Government of Delhi.

In the current environment each department within the Delhi Government has evolved its IT solution based on its own need and strategy without looking at or considering the big picture of service delivery to various stakeholders. Further the IT solutions developed have limited online transaction capabilities since most of the services being offered are more in the form of Information Dissemination, Form services and limited payment capabilities.

The envisaged architecture should provide citizen services through multiple channels which should be delivered seamlessly through a single point of access. This single window should deliver services that are integrated and spans across all departments and Government structures. The aim being to eliminate need to understand Government structure and departments to avail services.

While implementing the above mentioned blueprint, one needs to be cautious that this use of ICT in delivery of services should not create "Digital Divide". While many citizens in Delhi have access to

the web, there are many other citizens who still do not have access to these basic facilities. More than access to these facilities is the issue of basic literacy and computer literacy. Just how the concept of “PCO” revolutionized the Basic telephony industry wherein any citizen could just walk into the near by PCO booth to make a phone call, we need to ensure that the access channels for delivery of citizen services are easily accessible and affordable by the masses. Only once we achieve this can we invite public participation in adopting ICT as the way to receive service in daily life. Therefore it is important that services are offered through varied access channels like Internet, Telephone, Call Center, Kiosks, intermediaries, Citizen Service Bureaus etc.

To have varied access channels to serve various stakeholders it is important to invite private participation into service delivery. This would mean developing business models to facilitate private participation in service delivery which are self sustainable.

Another key aspect of Governance that needs to be addressed from this framework is to improve efficiencies within Governmental structure, reduce paper work and remove redundant processes. This in-turn would reduce administrative and compliance costs for both Government and citizens.

The best practice for aligning IT implementation with e-Governance Vision is through an established e-Governance blueprint as depicted in diagram below:

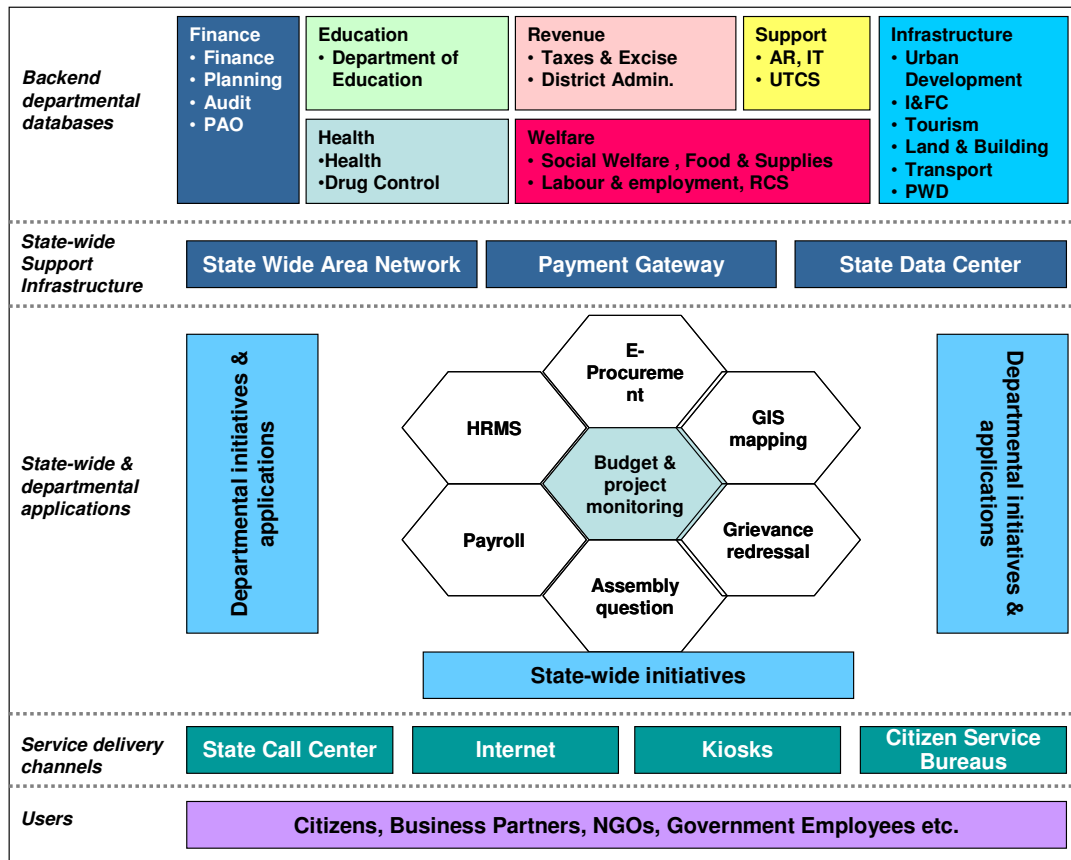


Figure 16: e-Governance Blueprint

In its most basic form the architecture can be depicted in a tiered model. Tiers of backend departmental databases, state-wide support infrastructure, state wide & departmental applications and service delivery channels. It is important to note that this architecture incorporates integration of services, to facilitate easy integration with the underlying IT operational systems that exist within and support the departments.

The **Back-end Departmental System** would contain the databases of the various State departments which could be collectively shared and utilized. The development, deployment, integration, centralization and updation mechanisms of databases would be standardized. Further these would be integrated with the state-wide data repositories at a later stage.

State-Wide Support Infrastructure would act as the backbone for NCT of Delhi consisting of the State Wide Area Network and the State Datacenter which would connect all the departments and provide access and connectivity to the Government employees and citizens across the State.

There is a lot of commonality in the processes followed by various departments and the process for service delivery in various departments, hence **Common applications** can be developed that can be used across the departments. This approach of reducing duplicity and integrated common applications will lead to standardization of processes and adoption of common standards, which are key enablers for promoting seamless integration. The **State-Wide Departmental Initiatives** would be moved to the center stage with a focus shift from stand-alone silo approach to a unified approach to provide better services to the citizens. These applications would be scalable to accommodate anticipated processing needs and include robust security functionality to prevent compromise of other integrated systems.

The above architecture would help provide a common view of information and data in the Government system. The key going forward shall be to have consistency in the way this information is manipulated and updated by various services. Similarly on the application front the mandate shall be to provide a common mechanism and infrastructure for implementing the services that will be provided to the constituents that are served by the Government of NCT of Delhi. A service oriented approach would be implemented where common services are identified and developed and business services are implemented in terms of these common services. The main goal is to separate the Business specific logic and rules and implement these in terms of common services.

The end objective of the complete e-Governance vision is to provide efficient, reliable, and transparent and time zone free services at a single window. Service Delivery Channel such as Citizen Service Bureaus, single point entry Internet portals; state wide call center would simultaneously cater to all the departments and act as the Front-End to the citizens and efficiently translate the vision to provide easy accessibility across state.

The Delhi Government should adopt the above architecture to become an eGovernment. The Government shall achieve improvements in both services and cost efficiencies by transforming business processes using ICT and providing citizens with a single unified access point to avail all Government services.

14. State-wide initiatives

The Department of Information technology has taken several state wide initiatives both in terms of infrastructure and application to support various departments and agencies and derive synergies from central infrastructure rather than each department / agency owning or implementing the same. Some of the key initiatives in this front include:

14.1. Existing State-wide Infrastructure

▪ Citizen Service Bureaus

The I.T. Policy of Government of Delhi envisages setting up of citizen service centers to facilitate payment of utility bills/ taxes/ fees and filing of applications for various services offered by government departments/agencies at one location. 134 such CSB/SUGAM KENDRAS are proposed, so that each ward of Corporation has one CSB/SUGAM KENDRA. The basic mandate of these delivery channels should be to act as One-Stop-Shop for delivering various services provided by the Government and make the life of common citizens easier.

People visit government offices either to deposit taxes, utility bills, and fees or to submit application for obtaining certificates/licenses or permits. They also have to visit government offices to renew such licenses/permits at regular intervals. In many cases, people need to visit government offices to get certified copies of orders/policy; guidelines or their own land records. Since, these services are provided by different department/agencies, they have to visit different offices, which function only on working days for few hours leading to congestion/overcrowding at counters and delay and dissatisfaction of people. The MCD's CSB/SUGAM KENDRAS have become quite popular as they bring convenience of getting all services at one place, across the counter in a better environment by a more courteous staff which is operating from till 5 in the evening. Bringing services of other departments/agencies under these centers will mean making all government services available at one location.

Public-Private Partnerships (PPPs) have been entered into substantially aid in establishing this desired network of Citizen Service Centers and the State Government should explore all the possibilities of entering into relevant Service Level Agreements (SLAs) for establishing and operating these Centers at various locations.

14.2. Existing Common Applications

▪ e-Courtis (Court Management Software)

- Web based application software
- Centralized data of court cases for all departments of Delhi Government
- Monitoring of the court cases of each department and its current position
- Shows at a glance the summary of pending and disposed cases of all departments pertaining to various courts
- Various queries like "Hearing due in next 7 days" for the cases that are going to be heard
- Summary of Court cases pending with various counsels of Delhi Government

▪ Tender Notice Information System

The web based tender notice information system allows publication of tender notices at one location which can be viewed by any one at any time. On publication of the tender notice the system provides free email notification to those who have registered themselves on the site. With in-built checks the system eliminates any possibility of manipulation in dates of sale. It is designed to accept details of contract to enable the citizens to see different information on contracts in public domain under Right to Information. The system can also be used to do expenditure analysis for the entire government for better and efficient procurement.

▪ Intra Delhi Portal

Intra Delhi is a G2G Portal which has been designed so that people can take advantage of relevant information across the Delhi Government to help them work more efficiently. It is a single gateway to essential information and applications for internal or external users. It is a central point to view on-line information. Moreover its focus is to integrate processes and procedures that would normally require paperwork.

▪ **Secretariat Attendance Monitoring System**

Attendance of employees is marked in registers from where the compilation takes considerable time. This software was developed with a view to have consolidated picture of attendance for whole secretariat where entry is done in a distributed manner by superintendent of each branch in respect of employees and by officers directly into the system.

The software dynamically shows attendance details from where one can drill down to a department and then to an individual employee. The system also enables control on casual leave and duties outside secretariat.

▪ **File Monitoring System**

The web-based file monitoring system tracks the movement of file across the government department. Receipt and dispatch of the files is done through this application software. Under this system, a file may be traced/ searched and one may find the pending files with a department/an officer. System also generates average dependency with various officers/desks.

The aim of providing the common applications is to ensure that uniform applications are used across the departments and to avoid duplicity of efforts. Following software modules and applications would be adopted across the State in all the Sectors identified earlier. This section highlights areas where such initiatives could be taken to derive synergies:

▪ **e- Purty**

The web based store management software manages many stores for different departments apart from having usual features of any stores management software. It not only enables filling of demand online it also provides complete usage pattern of various branches on different parameters. The system is in use in Delhi Secretariat and a few Departments. Salient features of the software are:

- Online submission of demand by branches
- Online report on consumption patterns
- Alert when inventory falls below a predetermined level
- Ensure bill passing only after receipt of goods
- Online ledger of any user/ any item

▪ **Procurement Monitoring System**

A web based application which enables close monitoring of placement of order with vendor, supplies made and payment disbursed. The application is presently being used for monitoring procurement of hardware, packaged software and networking equipments by departments of Govt. of Delhi. All departments have to compulsorily enter the details of equipments in the system to print the system generated purchase order; Receipt of goods is also entered in the system. At any time, one can see the status of supply/ orders online.

▪ **Web Based Information on IT Projects of Govt, of NCT of Delhi**

The idea behind this software is to keep the salient features of all IT projects at one place in a database from where search could be made by anyone. The idea is to enable IT managers of the other states to find details on our projects on different keys so that sharing of resources, knowledge and experience can take place to avoid re-invention of the wheel. This

can further be upgraded by having details of IT projects of all States/ UT's in this database making repository of all IT projects of the country at one place.

While the Government has taken the above state-wide / common initiatives to draw synergies, reduce cost of implementation, ensure consistency and remove duplicity there are lot of other areas where such state-wide initiatives could be taken. Some of the key initiatives both in the area of Infrastructure and common applications include:

14.3. Proposed State-wide Infrastructure

▪ State Wide Area Network

Integration of departments is a must to provide unified view of the government to the people as well as to share scarce resources. The State Wide Area network is under implementation with financial assistance from Department of Information Technology, Government of India. So far 29 offices located outside Secretariat have been connected with Secretariat and remaining ones are expected to be brought on State Wide Area Network. SWAN would be also connected to the national connectivity backbone; so that nationwide information can also be accessed through proper channels.

▪ State Data Centre

A state -of-the-art Data Centre at Delhi Secretariat having a capacity of 1Tera Byte expandable upto 8 Tera Byte is being set up. The Data Centre will contain a set of routers and switches that will transport traffic between the servers and to the outside world. Network security elements will also be deployed such as firewalls, VPN gateways, Intrusion detection systems, etc. The Data Centre will be utilized for running various kinds of applications that handle the operational data of several Delhi Government Departments.

▪ Data Warehousing

Computerization of major public dealing departments has led to creation of large databases on citizens; however, they do not talk to each other. The next step is to integrate them so that we have one view of the citizen. The idea behind integration is also to reduce the requirement of people to visit various departments and provide personal information again and again. Also the availability of information on a central location, which could be used by various departments, will ensure that no duplicate entities are created and benefits given under various government programmes reach the right people.

The following databases are required to be integrated at this stage are:

- Voters list
- Ration card data
- Driver license data
- Vehicle registration data
- Caste certificate data etc.

▪ Citizen Relationship and Grievance Management System (CRGMS) with Call Center

A need for a common Call Center has been proposed for the State whereby all Tele-services would be centrally provided. Information availability on various aspects of the Government and its working is the step in bringing transparency and accountability. However, on account of low penetration of Internet and low computer literacy, some mechanism needs to be in place to ensure that the contents are accessible to those who can not access the Internet. With this aim, a call center needs to be established to provide information to people relating to all aspects of government, its services, procedures, processes etc. This center will also be used for lodging of grievances telephonically and for monitoring their status and resolution time.

14.4. Proposed Common Applications

Common Initiatives						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
1.	– Execute and monitor the complete life cycle for the procurement processes carried out by various departments and monitor the progress at each stage	G2G	<ul style="list-style-type: none"> – Missing interlinks between the various departments – Lack of automation at various stages of procurement life cycle – Lack of reporting about the current status of various procurement projects at both department level and project level 	<p>e-Procurement</p> <p>A comprehensive web based application which enables automation of various stages of Procurement life cycle, starting from requirement gathering, formulation of tender document to finalization of successful tender and thereafter to project and contract management till completion of the project. The system would reduce processing costs and facilitates effective monitoring of placement of order with vendors, fulfillment of contractual obligations under scope of work and disbursement of payments</p> <p>The system should have key features like messaging & Interfacing Capabilities with Legacy Systems, e-Forms, Configurable business rules & authorizations, Catalogue Management Tools, Management Information Reports and Electronic Tendering</p>	High	High

Common Initiatives						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
2.	– Reporting of key performance indicators for monitoring to the Chief Minister and other Senior officials	G2G	<ul style="list-style-type: none"> – Increased volume of information – Manual and time consuming retrieval of information 	<p>– Chief Minister's Information System (CMIS)</p> <p>CMIS would aim to keep Hon'ble Chief Minister and Senior Officers abreast with the latest information and snapshot of current status of all the matters pertaining to CM Office.</p> <p>This integrated network enabled computerized system could be utilized for reporting and monitoring of the following services</p> <ul style="list-style-type: none"> ▪ Snapshot of key performance indicators for each department ▪ Monitoring of VVIP references ▪ Grievance Monitoring System ▪ Transfer desire of IAS / IPS / RAS etc. ▪ Monitoring of cabinet decisions compliance ▪ Desire of MP's, MLAs ▪ Record of important directions issued by CM ▪ eFile Tracking System ▪ Technology updates 	High	High

Common Initiatives						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
3.	– Management of information, skill, experience, innovation, and intelligence across departments	G2G	– Difficulty in capturing, organizing, sharing and storing knowledge within the government	– Knowledge Management System (KMS) This system could have a database of processes that govern the creation, dissemination and utilization of knowledge base comprising of facts, rules, models and concepts that defines the day-to-day decisions of the State Government. This information can be shared with officials of every level in various departments. Integration with the online discussion forum could be done for sharing best practices across the departments.	High	High
4.	– Sharing information and highlighting government's achievements to the department	G2G	– More focus on negative aspects of Government by media due to lack of direct links with the departments	– Comprehensive Public Relations Management System Allows departments to send news and announcements to hundreds of newspapers and media like Radio and Television electronically at a time with a single click. It would comprise of a database of Hindi, English and all languages newspapers and media companies with their e-mail addresses, Fax numbers and comprehensive database of Web Sites, Web Portals and News Agencies in India and Abroad.	High	High

Common Initiatives						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
5.	– Resolution of the queries raised by various departments and agencies of state government during assembly sessions	G2G	<ul style="list-style-type: none"> – Lack of central repository for all the queries raised and their responses – No automation of the query resolution system – Lack of status monitoring of the various queries raised by individual departments 	<ul style="list-style-type: none"> – Assembly Question Module <p>Integrated Web Based System to track, monitor and provide appropriate and timely replies to assembly questions, with details of action taken for various questions solicited in the State Legislative Assembly regarding the mandates of various Departments and agencies of State Government.</p> <p>This system would facilitate On-line viewing of record of all the questions and their responses for referral and reduce paper work and interdepartmental co-ordination issues.</p>	Low	High
6.	– Allocation and monitoring of the Budgets to the various departments	G2G	<ul style="list-style-type: none"> – Lack of system to prepare and monitor the budgets allocated to various departments for different projects – No tracking of status of the projects for which the budget is allocated 	<ul style="list-style-type: none"> – Budget Monitoring System <p>System to prepare, track and monitor head-wise budget of various departments and agencies of the Government. This system should have linkages with the e-Yojana software of the Government to track status of each of the projects and initiatives.</p>	High	Low
7.	– Monitoring the various schemes as declared by the departments under various development plans	G2G	<ul style="list-style-type: none"> – Lack of centralized system for regular monitoring of the progress of the various schemes 	<ul style="list-style-type: none"> – Scheme Monitoring System <p>Consolidated Web Based System for effectively managing various schemes & projects undertaken by various departments across the State clearly outlining the vision and objectives to be served by the scheme and the responsibilities of the personnel involved</p>	High	High

e-Governance Roadmap for Govt. of NCT of Delhi

174

Common Initiatives				
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives
8.	Redressal of the queries and grievances raised by the citizens of India on various services offered by different departments	G2C	<ul style="list-style-type: none"> Lack of a centralized grievance redressal system connecting all the departments so as to route the queries automatically to the concerned department Issue of monitoring the status of the grievances raised for a particular department Lack of evaluation and monitoring of the queries and responses to the queries 	<p>Grievance Redressal System</p> <p>Web based system to accept, escalate, track, monitor and respond to queries, grievances and complaints of citizens on various services provided by the State Government. The application should have the functionality to automatically route queries to appropriate Department / official, track delays in response if any, escalate issues if un-resolved till the point of logical closure of the query / grievance.</p> <p>Further the system should have a mechanism to evaluate and rate the responses to ascertain accountability for the redressal system.</p>
9.	Timely processing of the salary of government employees and preparation of salary statements	G2E	<ul style="list-style-type: none"> Lack of automation of the payroll system leading to delays in processing the salary Cumbersome process in declaring the various investments and saving mechanisms that the employee plans to exercise 	<p>Payroll Module</p> <p>Consolidated Web Based System for processing and preparation of salary statements of all Government employees.</p> <p>The system should have functionalities like accounts for each employee wherein an employee can declare his / her Tax Saving investment and other relevant scheme details; provide online salary statements etc. The system could also have additional module for maintaining GPF Records of State Government Employees</p>

Common Initiatives						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
10.	– Consolidated central repository of the state government data from various departments	G2G	<ul style="list-style-type: none"> – Lack of online central repository consolidating all the state government data from various departments – Lack of automation leading to cumbersome and time consuming process for searching the relevant information – Problem of storage as the physical documents become old and perishable 	<ul style="list-style-type: none"> – Content & Document Management System Web based system for storing, organizing, categorizing, browsing, searching, accessing and retrieving all the State Government data from various departments and agencies Further the software would have features for electronic publishing, scanning, and storage and retrieve documents received or created by the department. This system would support a large variety of document formats, extensive access control and searching capabilities across networks, and workflow component for routing 	High	Low
11.	– Monitoring the status of various government assets like PC, servers, UPS, ACs etc	G2G	<ul style="list-style-type: none"> – Lack of central repository listing all the assets in various departments with their specification details like date of purchase, model, department deployed etc 	<ul style="list-style-type: none"> – Facilities Management Web Based system to track and monitor the inventory and maintenance of the various Government assets like; PC/ Server/LAN H/W, UPS and Air conditioner Maintenance and Consumable, Media and Stationery 	High	Low

Common Initiatives						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
12.	<ul style="list-style-type: none"> – Workforce planning to deploy the available resources in various departments – Training and management of the personnel in various departments – Monitoring and appraising of the resources 	G2E,G2G	<ul style="list-style-type: none"> – Lack of centralized personnel information system covering the details of the personnel employed at all the state government departments – Workforce planning so as to make sure all the resources are deployed in the best fit projects – Lack of automated system for performance monitoring and appraisal of the government staff 	<ul style="list-style-type: none"> – Personnel Information Management System <p>Comprehensive web based Personnel Information Management System which would include modules like performance management, resource planning, workforce management in terms of attendance, leave, payments promotions, transfers, retirement benefits, employee training and development, employee feedback etc</p>	High	High
13.	<ul style="list-style-type: none"> – Managing both the intra-department and inter-department flow of files having vital government information 	G2G,G2E	<ul style="list-style-type: none"> – Possibility of loss / damage of physical file leading to disruption in working – Time consuming process of physically transferring file from one department to another 	<ul style="list-style-type: none"> – e- File System <p>Web Based workflow Application for file management. This system would basically replace the traditional physical file system in the Government wherein all noting, decision etc. would be given electronically on the system. The system would have option for search, file identifiers, instant file location, Search capabilities and tracking of various document workflows.</p>	High	Low

Common Initiatives						
S.No.	Services	Category	Challenges associated with Service Delivery	Proposed e-Governance Initiatives	Criticality	Feasibility
14.	Facilitating state wide initiatives by referencing the initiatives to the geographical locations of the state	G2G	<ul style="list-style-type: none"> Lack of a base application to map the initiatives to the geographical location Lack of complete information database about the specific locations within the state. The information like population density, water resources, physical terrain etc 	<ul style="list-style-type: none"> GIS Mapping Assembling, storing, manipulating and displaying geographically referenced information for the state. A base map could be built on which each department can build its own layer depending on its requirement. This could be utilized as a monitoring tool during implementation of construction projects and other developmental activities. Some of the applications of these maps could be: <ul style="list-style-type: none"> GIS mapping of the state's water resources and drainage system could help resolve the issue of multiplicity of authority as well as assist in tracking, monitoring and planning the activities w.r.t. de-silting. Road Information System around a GIS core: The objective of this application is to build a kilometer wise-transportation-related spatial and non-spatial database. Data from a variety of sources shall be integrated into one database accessible to the PWD officials. GIS mapping for planning of new routes, bus stops, auto / taxi stands etc. GIS mapping of all school & colleges, health facilities like Hospitals, dispensaries, clinics etc. 	High	Low

Common Initiatives

Leading Practices

E-Procurement (Government of Chattisgarh)

Objectives: To improve the efficiency of the procurement cycle by reducing procurement cycle times, reducing the cost of procurement, improving the quantity and quality of responses to procurement requests; and effecting savings in costs of works, goods and services.

Scope:

- Support for the procurement cycle for works, equipments, goods and services.
- Internal workflow for approval of tendering for specific projects;
- Web-based support for tendering including all RFx ("Request for") processes;
- Supplier registration;
- Downloading of RFx/tender documents;
- Includes rate contracts-based tendering, and simple quotation based procurement.
- Uploading of tenders/Requests and supporting documents;
- Recording of responses and required supporting documents
- Support for various systems of responses to tenders including single part and multi-part bidding;
- Support for evaluation of responses;
- Negotiation and award;
- Contract management
- Management Information System

Information Security, authentication, confidentiality, are to be provided for. Integration links required to other applications such as modules for estimations and tender preparation, design and engineering, project management; materials Management, payment processing etc.

Reach when fully implemented – All departments, covering Headquarters as well as district level establishments. All urban local bodies (109) In the case of Engineering departments, reach extends to zonal, circle, division and Subdivision level.

Pilot Departments – PWD, WRD, CSIDC, Health

Public procurement service, Republic of Korea

Summary:

The Public Procurement Service provides around 30,000 public institutions with goods and services needed to carry out their responsibilities and give better

Common Initiatives

service to the people. Formerly, however, the procurement administration had cumbersome procedures such as an enormous number of required documents and frequent visits to the Public Procurement Service. The Public Procurement Service has since gone through the reform of the procurement administration in general to reduce inconvenience, inefficiencies and problems and to eliminate irregularities. It reorganized its service from an administration-centered one to a service that is customer-oriented. It also opened procurement-related information to the public through the Internet on a real-time basis and involved external experts such as NGOs in the procurement process.

Impact:

By completing the basis for e-procurement by converting operations into an e-commerce base, establishing procurement electronic data interchange/electronic commerce, e-mail for government procurement, and an e-tendering system, the Public Procurement Service improved the efficiency of procurement operations, prevented any potential irregularities, and reduced costs by 300 billion won (US\$273 million) a year. It greatly reduced the lead time for procurement services, including the supply of office supplies, contracts and payments, and changed from an item-centered organization to a customer-oriented one. The Public Procurement Service was also able to root out sources of irregularities and corruption. In addition, it has made it possible to cut costs by 3.2 trillion won (US\$2.9 billion) every year through a government-wide e-procurement system (G2B), which provides other institutes with e-procurement tools.

Balance Scorecard in government sector

Local Government: City of Charlotte, North Carolina.

In the past, Charlotte, North Carolina measured government efficiency and effectiveness through the typical means of setting objectives and tracking performance of these objectives. However, the city found this approach limited for strategic planning. In response, they incorporated the BSC to transform its mission and strategy into concrete objectives and measures. The BSC provides a comprehensive view of the City's five focus areas (Community Safety, City-Within-A-City, Economic Development, Transportation, and Restructuring Government). These goals are balanced with another four perspectives: customer satisfaction, financial efficiency, internal processes, and learning and growth. The scorecard monitors progress on the bottom line, tracks progress on customer satisfaction, and evaluates organizational capacity building. In 2000, the city of Charlotte implemented measures for each of the nineteen objectives on the scorecard, creating a "dashboard" of the achievement across the five focus areas and the four perspectives. Each business unit has a business plan and a scorecard linked to and supported by each of the objectives of the corporate scorecard. For example, community safety has the objectives of reducing crime and increasing the perception of safety. Following the BSC has improved the clarity of strategic priorities and provided concise measures. The city conducts surveys to measure customer satisfaction, assesses its bottom line by comparing its costs to other cities, evaluates its administrative processes by using activity-based-costing analyses, and directs attention to the human capital of its employees by polling employees to see if they believed they had the necessary skills and resources to do their jobs. The reforms were designed to connect customer satisfaction with well-run departments and basic performance goals.

An application of the BSC to public agencies is particularly appropriate for complex, transparent, and mature organizations with diverse stakeholders. To be effective, the strategic planning process should be adapted to the particular needs and goals of each organization to identify appropriate perspectives. In general, however, it would include four: financial, citizen service, internal work processes, and learning and growth of employees. Pressures for increased

Common Initiatives

financial efficiency affect public agencies, in both developed and developing countries. In fact, fiscal crisis may provide the public and politicians with the political will to push for reform. An advantage of the BSC is that reform does not end with increased efficiency, regardless of organizational mission and public needs. The strategic process of creating the BSC would attempt to reform public organizations so that they would better meet the needs of the citizens and the missions of their agency. In terms of internal work processes and human capital, the BSC has the potential to increase institutional capacity. By creating a more comprehensive overview of the agency, the BSC has the potential to encourage more long range planning, create more well-rounded objectives, and provide taxpayers with a clearer vision of where, how and what their taxes are being spent. Despite the promise of reform, the BSC is not a panacea. Successful implementation is likely to be limited to complex, mature and transparent public agencies.

Bhoomi (State of Karnataka)

BHOOMI, the land records management systems is the first e-Governance project successfully implemented for the benefits of the common man, jointly by the GoK & NIC, Karnataka. It has been providing service to more than 70 lakh farmers of Karnataka since the last 4 years. BHOOMI has become the model for replication in many other States. It has received wide spread recognition by public and also won international award (Sliver of CAPAM 2002)

"Bhoomi" is very comprehensive software designed by NIC, Bangalore. This software provides for printing of land records as and when required. It incorporates process of online updation to ensure that the RTCs provided to the farmers are in sync with the time. The manual land records in operationalised taluks have been declared illegal. All the mutations to the land records database are done on the computer itself so as to ensure that data on computer remain current with time.

It incorporates the state of the art bio-logon metrics system from Compaq, which authenticates various users on the Bhoomi software on the basis of fingerprints. This ensures that no body can hack the system by imitating other users. The replacement of password security system by fingerprint authentication system would go a long way to ensure those databases are free from any hacking and that the non-repudiation system is in place. This software also has the provision of scanning of original mutation orders of the revenue inspector (who is the authorized person to pass orders in the mutations in the field) and notices served on interested parties. Both documents are scanned to ensure that not only responsibility can be fixed on Officials by showing the original documents signed by them but also to ensure that the interested parties do not claim in the court that they were not served with the notice before effecting the mutation.

The software enables the administrators to generate various reports based on type of soil, land holding size, type of crops grown etc. This information would enable administrators to take informed policy decision.

Grievance Redressal System

Web based system to accept, escalate, track, monitor and respond to queries, grievances and complaints of citizens on various services provided by the State Government. The application should have the functionality to automatically route queries to appropriate Department / official, track delays in response if any, escalate issues if un-resolved till the point of logical closure of the query / grievance.

Further the system should have a mechanism to evaluate and rate the responses to ascertain accountability for the redressal system.

(Government of Punjab)

Common Initiatives

Provides a single interface to the public to relay their concerns or grievances effectively and conveniently to government. Citizens being one of the key stakeholders, it is important for government to provide a channel for obtaining feedback on the services delivered and for continual improvement. The features available from this service include the following:

Inbound receipt

- Multimedia based lodging of complaints (phone, internet, email, drop box, post)
- Routing of complaints to appropriate departments
- Transaction status tracking (in process or resolved, etc.).

Outbound response

- Multimedia reporting to public of resolutions or actions taken
- Performance reports by departments tracking progress made in resolving grievances.

Value to the Citizen

- Choice of multiple delivery channels to relay grievances
- Accessibility and convenience offered 24X7
- Technology-literate citizen

Value to the Government

- Greater government visibility and transparency to public
- Continuous improvement on quality of services rendered
- Capture of popular issues and public concerns for government to address
- Enhanced perception of being a “caring” and highly IT savvy government.

Knowledge management system

Collection of processes that govern the creation, dissemination and utilization of knowledge base (comprising of facts, rules, models and concepts that defines the day-to-day decisions made at every level) of the State Government to various Departments and Agencies.

Workflow and Knowledge Management System for Secretariat Departments (Chattisgarh)

Objectives: To streamline and automate Secretariat workflows to improve the productivity and quality of decision making in file disposal; To streamline documentation and document management by replacing paper-based documents with documents in electronic form. Expected benefits include

- Reduction in time taken for file disposal, support for prioritization of work
- Automatic notifications and reminders, improved consistency and quality of work through knowledge management support
- Increased trace ability and accountability

Common Initiatives

Scope:

- Creation of electronic files from incoming correspondence, assignment of unique file numbers; maintenance of registers
- Movement of files based on established workflow rules. Support for cross-department workflow where required
- Creation of a knowledge base and central repository of files to support workflow, which will provide access to a similar previous files / precedents, attaching relevant precedents and forwarding for further processing
- Access to other related information resources such as Acts, rules, Gos, etc
- MIS for monitoring the efficiency of file disposal; tracking the status of files, etc
- Security, confidentiality requirements to be addressed

Reach when fully implemented – All Secretariat departments, Approximately 860 employees belonging to Classes 1, 2, and 3.

(Punjab Government)

Data Warehousing & Knowledge Management System:

- Transactional systems running on RDBMS platforms capture on-line, operational data.
- OLTP Systems are not geared for data analysis or data modeling; Ad-hoc queries, done on the fly, in a point and click mode cannot be done.

There is a strong need for a system that is an orderly and accessible repository of known facts and related data that helps users make more informed, fast decisions through the analysis of key trends and events that affect administration / service to citizens. In this system, users spend less time finding and accumulating data, and more time in analyzing the information thus leading to better decisions.

Value to Government:

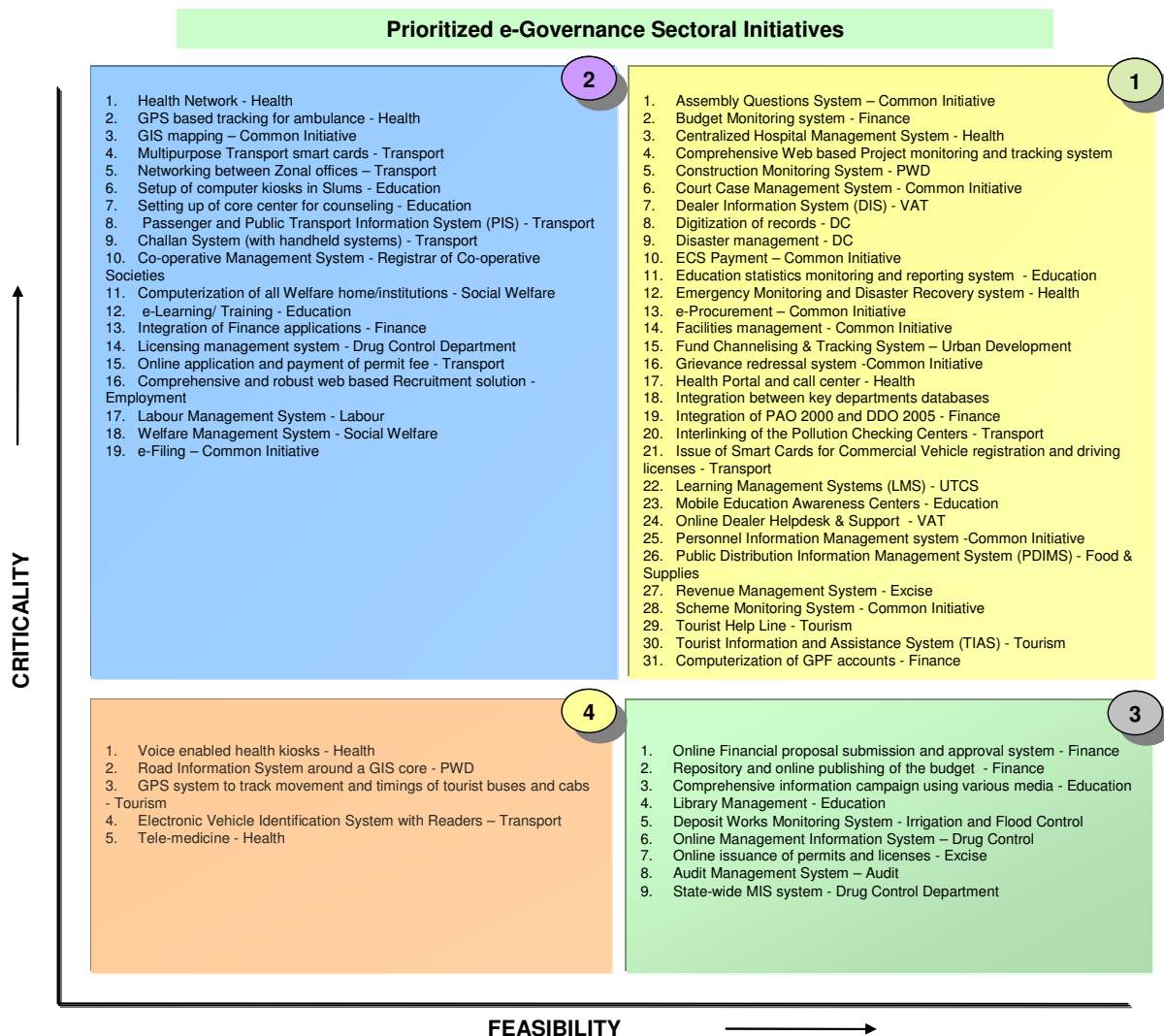
All the analytical inputs derived from transaction data, for policy making will be available whenever required.

15. Recommendations for implementation

As necessitated by the National e-Governance Plan, the document 'Strategy & Blueprint' outlines action points which would enable NCT of Delhi to move ahead on the road of e-Governance. The following recommendations are the outcomes of Vision and Strategic Planning Process, setting out the key target areas of e-Government initiative and their relationships:

- Enabling the transition of the current state of individual departmental initiatives to integrated transaction through a modular and scalable framework and provide scope for future expansions
- Moving all common services to Citizen Service Bureaus which would act as One-Stop-Shop for delivering various government services. Further, Leveraging intermediaries and public private partnerships to encourage usage and adoption of e-Governance and at the same time providing quality services and making the initiatives sustainable on a long term basis
- A paradigm shift from department based procedures/Initiatives to citizen oriented services is envisaged through necessary administrative and procedural reengineering as efficiency is the key ingredient to achieve the e-Governance Vision. Further the focus has to be on improvement of take-up of initiatives by operationalizing more citizen centric access channels and providing the citizens with a wider array of options
- Core infrastructure like State Wide Area Network, State Data Center etc. , which would be the backbone for departmental Governance, has to be developed and deployed throughout the State
- Promoting interdepartmental messaging service to support the electronic exchange of citizen data among government agency and departments. Further, improvement in the efficiencies within the government by way of consolidated databases that would provide relevant information faster and assist better enforcement of law by application of statewide common policies and regulations.
- Derive synergies to reduce duplicity from cross departmental interactions in areas like: maintaining citizen databases, usage of Common applications, GIS mapping etc.
- Regular scrutiny of the overall progress of e-Governance initiatives with a comprehensive set of performance management tools to monitor the effectiveness of various initiatives
- The responsibility for implementing e-Governance should be decentralized though Program Management and Planning shall be centralized; there should be common guidelines and solutions to general problems of a legal, technical and organizational nature

Based on the discussions with the Head of the departments and the Chief Secretary of State in the State eGovernance Apex Committee, the initiatives were prioritized in the following four quadrants of the Prioritization framework, which would be implemented in the next 3-5 years.



Annexure I: Documents referred for EGRM

- The Capital Goes Digital Version 3.0
- Enable
- Vision 2021
- Socio- economic Profile 2003-04
- Economic Survey of Delhi 2003-04
- Summary of budgets 2002-2005- Accounts for the latest few years, budget estimates for the coming year, Provisions for the plan scheme, under different revenue and capital heads.
- Political manifesto of the ruling party
- Budget Speech- 2005-06
- Five Year Plan 2002-07
- Annual Plan 2005-06
- Republic Day Speech 2006
- Session Start speech Dec 2003
- Citizen Charter of the departments
- Annual Report of the prioritized departments(2005 – 06)
- Reform Committee Recommendations
- Any Consultancy/ assessment reports related to the department
- Current E-Governance management structure
- Human Development Report 2004
- E-Readiness Report 2004

List of websites visited

- Administrative Reforms: <http://ar.delhigovt.nic.in/>
- Audit: <http://audit.delhigovt.nic.in/>
- Controller of Accounts – PAO: <http://coa.delhigovt.nic.in/>
- District Administration: <http://districts.delhigovt.nic.in/>
- Education: <http://edudel.nic.in/>
- Employment: <http://emp-delhigovt.nic.in/>
- Excise: <http://excise.delhigovt.nic.in/>
- Food & Supplies: <http://delhigovt.nic.in/dept/food/content.asp>
- Health and Drug Control: <http://health.delhigovt.nic.in/>
- Information Technology: <http://it.delhigovt.nic.in/>
- Irrigation & Flood Control: <http://ifc.delhigovt.nic.in/>
- Labour: <http://labour.delhigovt.nic.in/>
- Land & Building: <http://land.delhigovt.nic.in/>
- Planning: <http://delhiplanning.nic.in/>
- Public Works Department: <http://www.pwd.delhigovt.nic.in/>
- Registrar Cooperative Societies: <http://rcs.delhigovt.nic.in/>
- Sales Tax / VAT: <http://www.delhisalestax.com>
- Social Welfare: <http://socialwelfare.delhigovt.nic.in/>
- Tourism: <http://delhitourism.nic.in/>
- Transport : <http://transport.delhigovt.nic.in/>
- Union Territory Civil Services: <http://utcs.delhigovt.nic.in/>

16. Annexure II: Key Officials met during EGRM study:

Department	Name	Designation
Education	Mr. Vijay Kumar	Director Education
	Mr. Ashok Kumar	Superintendent
Excise	Dr. Sharat Chauhan	Commissioner
	Mr. S.K. Behra,	System Analyst
Irrigation & Flood Control	Mr. Narendra Kumar	Divisional Commissioner
	Mr. V. P. S. Tomar	Superintending Engineer
Food & Supplies	Mr K.S. Mehra	Commissioner
	Mr. Harish Tyagi	Superintendent
Land & Building	Mr. O.P. Kelkar	Principal Secretary
	Mr. A.K. Gambhir	Superintendent
Registrar of Co-operative Societies	Mr. Satya Gopal	Registrar and Secretary
	Mr. S.C. Pradhan	Superintendent
Social Welfare	Mr. Nerendra Kumar	Commissioner Secretary
	Mr. Mahesh Sharma	Assistant Director
Tourism	Mr. Sharat Kaur	Managing Director
	Mr. Manikshaw Bakshi	Programmer
Urban Development	Mr. O.P. Kelkar	Principal Secretary
	Mr. Manoj Kumar	Joint Secretary
	Mr. Manoj Aggarwal	Deputy Secretary
Transport	Mr. Vijay Madan	Commissioner
	Mr. S.S. Gill	Deputy Commissioner
	Mr. Gautam	System Analyst
Union Territories Civil Services	Mr. Anshu Prakash	Secretary
	Mr. Saxena	Assistant Director
	Mr. K. Mahesh	Joint Director
District Administration	Mr. Narendra Kumar	Divisional Commissioner
	Mr. P.K. Panda	Deputy Magistrate
Audit	Mr. Bhatt	Principal Secretary
	Mr Sahgal	Chief Accounts Officer
Finance	Mr. Bhatt	Principal Secretary
	Ms. Mala Sood	Superintendent
Planning	Mr. Bhatt	Principal Secretary
	Dr. B.K. Sharma	Director
Principal Accounts Office	Mr. Bhatt	Principal Secretary
	Mr. S.N Shukla	Dy. Controller of Accounts
Labour	Mr G. Narendra Kumar	Commissioner
	Mr. Ashok Kumar	Assistant Director
Employment	Mr G. Narendra Kumar	Commissioner
	Sh. Omkar Singh	Joint Director
Health	Dr. Vijay Rai	CMO (NFSG) & Nodal Officer for IT (Delhi State Health Mission)
Drug Control	Mr P.P Sharma	Deputy Drug Controller

Department	Name	Designation
Public Works Department	Mr. Ravi Kant	Assistant Drug Controller
	Mr. Rakesh Mohan	Principal Secretary
	Mr. S. Jethwani	Director
	Mr. A.K. Sharma	Director
Administrative Reforms		
	Dr. K.B. Rai	Deputy Director
Trade and Taxes		
	Mr. Sanjiv Khirwar,	Additional Commissioner
	Mr K.S. Bist	System Analyst

17. Annexure III: National e-Governance Plan

The Government of India has approved the National E-Governance Action Plan for implementation during the year 2003-2007. The Plan seeks to lay the foundation and provide the impetus for long-term growth of e-Governance within the country. The plan seeks to create the right governance and institutional mechanisms, set up the core infrastructure and policies and implement a number of Mission Mode Projects at the center, state and integrated service levels to create a citizen-centric and business-centric environment for governance.

Important components of the NeGP are projects, which fall essentially within the domain of the State Governments. The State Governments naturally will prioritise/choose amongst these projects

▪ Vision of NeGP

“All Government services accessible to the common man in his locality, throughout his life through a One-stop-shop (integrated service delivery) ensuring efficiency, transparency & reliability at affordable costs to meet the basic needs of the common man”

▪ Mission Mode Projects

The Mission Mode Projects have been short listed based on the following criteria:

- Impact in terms of number of people likely to be affected by project
- Impact in terms of likely improvement of the quality of service
- Impact on the economy or economic environment in the country
- Impact in terms of the likely cost-benefit of investments in the project
- Readiness and willingness of ministry/ department to position a National Mission Project
- Feasibility of implementing the project from a financial, administrative and political perspective within a reasonable time frame

Under the Central Government there exist 8 Mission Mode Projects; which are:

- Income Tax
- Passport Visa & Immigration Project
- DCA21-Department of Company Affairs
- Insurance
- National Citizen Database
- Central Excise
- Pensions
- Banking

The prioritized Mission Mode Projects for the State include:

- Land Records
- Road Transport
- Property Registration
- Agriculture
- Treasuries
- Municipalities
- Gram Panchayats
- Commercial Taxes
- Police (UTs initially)
- Employment Exchange