Mission Mode Project Name: “e-governance for MCD, Delhi”

A. Project Background

Municipal Corporation of Delhi has decided to leverage information and communication technologies to provide efficient, affordable, accountable and transparent municipal services to the people of Delhi. The use of Information and Communication Technologies, in our daily lives has become so common, that to ignore its potentially beneficial influence in the area of municipal governance was no longer possible. With this in mind, MCD decided to implement e-governance.

E-governance is the use of information technology to deliver public services in a much more convenient, people-oriented, cost-effective, and altogether different and better way. It affects an administrative body’s dealings with citizens, businesses, and other public agencies as well as its internal business processes and employees.

MCD is the biggest Corporation of India, covering most of 1470 sq.kms. area of National Capital and dealing with 14 million population. There was hardly any computerization or e-governance initiatives taken prior to year 2002. MCD has 1, 50,000 employees and offices are in more than 100 buildings located all over Delhi.

B. Project Objectives

The strategies adopted by MCD for ushering in municipal E-governance were based on the belief that objectives of MCD’s E-governance programme are as follow:

a) To bring MCD closer to the people through Citizen Service Points, PCs’ kiosks, telephones and others.
b) When, where and how – users will decide when, where from and how to interact with MCD e.g. from home, at work or on the move.
c) Provide round the clock services—24 hours a day, 7 days a week through its proposed interactive and dynamic website.
d) Set up a modernized municipal services network through increasing use of Information and Communication Technologies in all departments and offices.
e) Create a digital community – A digital community can foster personal involvement in municipal governance by municipal government by providing people with easier access to information and other resources.
f) More transparent efficient, effective decision making in an integrated information network.
g) Strengthening of the management of municipalities by enabling them to become more efficient in resource management, tax collection and identifying local infrastructure needs especially for the poor in respect of health, education, shelter and basic services.
h) Preparation of work plan, maintenance of accounts, balance sheet, ward wise and neighborhood wise identification of deficiencies and preparation of bottom up annual plans.

C. Project Approach

An I.T. Master Plan was got prepared by MCD having details regarding strategies, project components, time frame, implementation alternatives and an
indications of cost estimates. The master plan was prepared by Tata Consultancy Services in 2003 for five years.

Further in keeping with the developments that are taking place the world over, MCD encouraged public-private partnership (PPP) for implementing its e-governance initiatives. MCD adopted innovative models of implementing its IT plans on Build, Own and Operate revenue model in order to ensure that neither absence of IT skills in municipal employees nor MCD’s non-existent IT infrastructure come in the way of successful implementation of these plans.

D.1 Project Components

1. To prepare MCD’s Master Plan for IT
2. Launching of an interactive and dynamic website under PPP
3. Setting up of Citizen Service Bureaus under PPP
4. Digitization of records of important functions/departments.
5. Training of municipal staff
6. Capacity building in the areas of
   - IT infrastructure
   - Health
   - Engineering
   - Sanitation
   - Education
   - Employee Information System
   - Financial Management and Property Tax Collection System
   - Electronic Mailing & Workflow system for the MCD.

D.2. Present Status.

1. *Master IT Plan: 2003 has been prepared for 5 years.*

2. *Projects already initiated and completed on PPP (Public Private Partnership) Basis.*
   i) MCD dynamic Website [www.mcdonline.gov.in](http://www.mcdonline.gov.in) has been launched on 12-2-2003
   ii) 13 Citizen Service Bureaus in 12 MCD Zone and one at MCD Headquarter at Town Hall are in operation. They provide the following services to the citizens.
      a) Registration & issue of Birth & Death Certificates
      b) Issue/Renewal/Amendment of all types of licenses such as General Trade licenses, Factory licenses, General Health Trade licenses, Tehbazari licenses, Rickshaw Puller licenses etc.
      c) Collection of property taxes
      d) Booking of Parks/Community Centers for private function
      e) Receiving payment through Internet payment gateway.
f) 350 Hospitals (Private & Government hospitals) have been registered for online registration of Birth & Death

3. Records of the following departments have been digitized.

a) Birth & Death records pertaining to years 1998, 1999, 2001 has been digitized so that Citizens can take Birth & Death Certificates immediately for the said period.

b) Factory licenses records have been digitized.

4. Projects initiated by MCD through funds made available either from its own resources or through Urban Development Funds from GNCTD or through Councilors Development Fund:

MCD got prepared an IT Master Plan 2003 for 5 years by TCS and prioritized its needs. Training or up gradation of skill of its employees was the first priority. Provision of basic IT infrastructure and identification of computerization needs at various departments was next prioritized. Electric mailing and LANs were planned initially on a limited scale. Status of these initiatives is given below:

i) Training

a) Training of Municipal Staff.
   i) More than 600 municipal employees have been trained in basic computer training. Additionally, two training centers have been set up to provide computer training to the Doctors, Nurses, in Hindu Rao Hospital and Swami Dayanand Hospital.
   ii) 10 computers at each of 6 Science Centers in Schools have been set up to provide basic computer training to school teacher.

b) Computer Aided Learning established in 1000 primary schools under the project ‘SHARDA’. 5 to 6 computers with one computer teaching faculty have been provided at each school. Work is in progress for providing training in the remaining 850 schools.

c) IT - Infrastructure
   i) I.T. Infrastructure: 13 IT work stations have been set up in each zone and at Town Hall. Each of these IT Workstations consists of 5 computers and two printers. Following jobs can be done in the IT work stations.
      i. Monitoring of the transactions done at CSBs
      ii. Printing of reports
      iii. Creation of Database, edition of data
      iv. Accessing of various IT applications developed by various vendors.
   ii) 250 desktop computers provided to senior officers
   iii) 134 Laptop computers provided to the Municipal Councilors
   iv) A pair of high end servers has been set up for testing of applications developed by e Governments Foundation like FMS, PGR, PTIS, WAP etc.
d) **Software Application**

Following applications which have identified under Master IT Plan are being developed by various reputed software houses in the country and presently are under advance stage of Coding and Beta testing. All these jobs were awarded through open advertisement and by 2 stage tendering process.

(i) **Engineering Department Information System**: To automate operations and functions of Engineering Department efficiently and monitor all relevant activities of construction, development, electrical and other works.

(ii) **Health Information System**: Computerization of all MCD hospitals, to build efficiency and productivity with better workflow management to monitor allocated funds and expenditure utilization analysis, and to develop a common clinical database etc.

(iii) **Employees Information System**: To achieve standardization in the administration and assured functioning at the zones, departments and headquarters.

(iv) **Solid Waste Transportation System**.
(v) **Computerised Public Grievances Redressal & Monitoring**.
(vi) **Ward Action Plan Monitoring**.
(vii) **E-Procurement System**.
(viii) **Property Tax System**: This is an important element of capacity building and with its implementation, MCD expect to increase its revenue by at least four times.
(ix) **Financial Management System**.
(x) **Public Grievances Redressal System**

e) **Project Monitoring**:

Each of the application development/project component is monitored through a Project Monitoring and Implementation Committee (PIC) set up by MCD. PIC consist not only very senior officers of each functional department but also IT specialist. It is also proposed that IT systems set up under this mission mode project shall be inspected through STQC of Govt. of India and system auditing by 3rd party at regular intervals.

**E. Project Plan**

**E.1. PPP Activities**:

a) Expansion of Citizen Service Bureaus (CSBs) to act as single point e-governance window for whole of Delhi Government Services.

b) Present number of 13 CSBs shall be expanded to 134 numbers which is one for each Ward of MCD.
c) Each of official posted at 134 Wards in two shifts shall be provided a basic training by MCD in public relation (by a professional PR agency) besides jobs related training.

**E.2. Training:**

Training is a continuous exercise. MCD has no resource of its own in the area of computer training. Training provided so far has been more through external resources both in terms of facilities and faculty.

It is estimated that MCD shall have to provide basic computer training to a very large number of its employees including school teachers, hospital staff etc. on repetitive basis. Besides, special training in computer systems and networking shall also be needed to be provided to a core group of officials dealing in IT related activities in MCD. So far a small percentage (5%) of its employees has been provided training in basic computer awareness either in after office hours at CSBs or at School Science Centers through Microsoft learning scheme.

**It is therefore proposed to set up an independent computer training institute for which land, building shall have to be provided either by MCD or GNCTD and funds be made available under this mission mode project for equipments, facilities etc. It is proposed that apart from a few administrative staff on deputation from GNCTD/MCD, all faculties and supporting staff shall be hired on contract basis.**

Such a training institute shall not only strengthen IT infrastructure in MCD, but many be focal point of training in future for municipalities/ULBs all over India.

Proposed training institute shall be able to cater to provide lecture hall and internet based lab. training to about 200 trainees at one time. It is estimated that 40 weeks engagement of 6 batches of 30 trainees each shall be able to provide at least training to 7200 trainees in a year.

Based on approval under mission mode project for setting up a Municipal Computer Training Institute at Delhi, a detailed project report could be prepared but it is estimated that an approximate amount of Rs.5.0 crores shall be required in addition to land and building. A time frame of about 1 year shall be required to set up the institute after the building is made available.

**E.3. I.T. Infrastructure**

MCD has a very limited infrastructure as explained under clause D2.4©. However, as software applications in various functions are at advance stage of implementation, an elaborated IT infrastructure is required urgently at three levels as given below:

a) Client computers at desk of each concerned official
b) Networking both local area in each office and also Wide area to connect offices
c) Servers.

a) Client Computers:
As per IT Master Plan of MCD, client computers are required at Junior Engineer/Inspector level, who are the most important link in the execution of jobs. It is estimated that 4000 desk top computers shall be needed in various departments of MCD. 2500 computers are needed immediately to run both type of applications which are almost 'live' and which are at advance stage of implementation like HIS, PGR, Engg. System, SWTS, EIS, E-procurement. Remaining 1500 computers shall be required in 2006-07.

b) Network.
Local Area Network (LAN) are the most important element of any computerization plan. It is almost non existent in MCD. 22 buildings have been identified in MCD for LAN where bulk of officials work. In addition, 80-90 small office buildings housing divisions of Engineering Department require 5-8 nodes small LANs.

Hospitals covering wide areas also need LANs immediately as Hospital computerized applications have almost gone ‘live’. In all, the 22 buildings need LAN in 2005-06. Small building are proposed to be provided LANs in 2006-07.

c) Servers.
MCD neither have IT cadre to set up and operate servers nor proposed to build one. Rather as per the recommendations of IT Master Plan, it proposes to set up data center on Build, Own & Operate (BOO) basis by outsourcing. Selected vendors shall be required to set up WAN and ‘Server Farm’ and provide data processing facilities to MCD for its various software applications.

Selection process of a vendor for ‘data center’ through open advertisement by 2 tier tendering process is ON and ‘data center’ is expected to be set up by September 2005-06. Messaging and work flow system is proposed to be set up fully by 2006-07.

d) MCD proposes to connect small offices to its ‘Data Center’ and MCD’s Website [www.mcdonline.gov.in](http://www.mcdonline.gov.in) through broad band connectivity in 2005-06.

E.4. Digitisation:

Following records needs to be digitized.

a) Property Tax System legacy records as well as self assessment forms.
b) Building Lay out Plans.
c) Employee Details.
d) Hospital legacy records
e) GIS records for property
f) MCD asset records for Urban Planning, Solid waste management, etc.

It is proposed that except for GIS records for property all other records could be digitized in 2005-06. GIS records are proposed to be completed zone wise and to be completed by 2007-08.

F. Project Phasing, Cost and implementation schedule:

F1 Phasing
Phase-I

- Preparation of Master IT Plan
- Setting up dynamic Website and Citizen Service Bureaus
- Trailering to initial batch of staff
- Digitisation of licenses data, birth & death records, parks, community halls
- Identification of Core applications and arrange its software development.
- Limited IT infrastructure.

Phase-II (2005-06)

- Expansion of CSBs to 134 wards.
- Digitisation of employees records, property tax legacy records, hospital legacy records.
- Training on e-procurement, basic computers awareness and use of various MCD software applications.
- Setting up of Data Center & WAN
- Provision of 2500 computers
- LAN in 22 buildings
- Broadband connectivity in all MCD offices
- Implementation of computerization in 6 Hospitals
- Processing of tenders of value more than 10 lakhs through e-procurement
- Implementation of SWTS, EIS, EDIS applications

Phase-III (2006-08)

- Setting up Municipal Computer Institute of Training (MCIT)
- Digitisation of remaining tax records and GIS mapping
- Smooth implementation of e-procurement, Engineering Information System, PTIS, FMS, GIS.
- Implementation of messaging and work flow system.
- Implementation of MCD’s other applications like Vigilance, Legal etc.
- Implementation of ‘SAP’ in slaughter house.

F2 Project Costing and Implementation time frames

1. Project Name: “e-Governance for MCD, Delhi”

2. Phase-I: Completed. Total costs incurred 5.0 crores including cost of civic and electrical works for setting up CSBs.

3. Phase-II:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Project component</th>
<th>Status</th>
<th>Costs</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Digitization of legacy records</td>
<td>Data entry operators empanelled</td>
<td>Rs.2.0 crores</td>
<td>S.N.I</td>
</tr>
<tr>
<td>2.</td>
<td>Training &amp; Awareness</td>
<td>Agencies identified</td>
<td>Rs.0.5 crore</td>
<td>S.N.I</td>
</tr>
<tr>
<td>3.</td>
<td>Software development cost of applications like HIS, EIS, EDIS, SWTS</td>
<td>Part payment due on completion and acceptance</td>
<td>Rs.4.0 crores</td>
<td>To be arranged by MCD</td>
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</table>
4. **Phase-III (2006-08)**

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Project Component</th>
<th>Status</th>
<th>Costs</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Municipal Computer Institute of Training (MCIT)</td>
<td>Note 1</td>
<td>Rs. 5.0 crore</td>
<td>S.N.I.</td>
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<tr>
<td>2.</td>
<td>Digitisation of remaining property records, building layout, GIS mapping</td>
<td>Note 2</td>
<td>Rs. 8.0 crore</td>
<td>S.N.I</td>
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<tr>
<td>3.</td>
<td>Development &amp; implementation of messaging, work flow system, vigilance, legal and other MCD functional systems</td>
<td>Note 2</td>
<td>Rs.10 crore</td>
<td>S.N.I</td>
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<td>4.</td>
<td>Implementation of ‘SAP’ at Slaughter House</td>
<td>Note 1</td>
<td>Rs.2.0 crore</td>
<td>S.N.I</td>
</tr>
<tr>
<td>5.</td>
<td>Small LAN at 100 divisional offices</td>
<td>Note 2</td>
<td>Rs. 1.0 crore</td>
<td>S.N.I</td>
</tr>
<tr>
<td>6.</td>
<td>Provision of 1500 desktop computers</td>
<td>Note 2</td>
<td>Rs. 6.0 crore</td>
<td>S.N.I</td>
</tr>
<tr>
<td>7.</td>
<td>GIS &amp; CAD Center</td>
<td>Note 1</td>
<td>Rs. 5.0 crore</td>
<td>S.N.I</td>
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<tr>
<td></td>
<td>Phase III Total</td>
<td>Note 1</td>
<td>Rs. 37.0 crore</td>
<td></td>
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</tbody>
</table>

**Note:**

1. Details of component including cost breakup is being worked out. However, MCD/GNCTD will arrange for land and building for Training Institute..
2. Details are available under IT Master Plan. Tendering has to yet take place.
G. 1. Project Cost Summary (all in Rupees crores)

<table>
<thead>
<tr>
<th>Phase</th>
<th>MCS funds</th>
<th>arranged</th>
<th>Source of Fund not yet identified</th>
<th>Total Project cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>5.0</td>
<td>-</td>
<td>05.0</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>4.5</td>
<td>28.5</td>
<td>33.0</td>
<td></td>
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<tr>
<td>III</td>
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<tr>
<td>Total</td>
<td>9.5</td>
<td>65.5</td>
<td>75.0</td>
<td></td>
</tr>
</tbody>
</table>

NOTES:
1. Cost of land, building for setting up Municipal Computers Institute of Training shall be extra and to be arranged by MCD/GNCTD.
2. Cost of recurring expenditure including salaries of technical manpower and Consultants/Advisors, Hiring of leased lines, service charges towards data centre, maintenance charges of equipment and application software and project management expenses are over and above of these cost projections and shall be arranged by MCD.