eGovernance in Maharashtra

Presentation by

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Commissioner

Kalyan Dombivli Municipal Corporation

Maharashtra

Conceptualisation

Approach & Methodology

Design & Development

Implementation

Key Result Area

Awards & Recognitions

Replication in Maharashtra

Creating an
e -Governed
Municipal
Corporation

Good Governance
Process Reengineering
IT enablement
Real-Time Network
24/7 Service
Citizen Facilitation Centers
e-Services/Information Portal

Kalyan Dombivli Municipal Corporation

Conceptualization of e-Governance @ KDMC

- **Project Vision**

  To make effective use of Information and Communication Technology to improve the civic service delivery system

- **Project Objectives:**

  - A – Z citizen services of the corporation through a single touch point system (Citizen Facilitation Centers)

  - Improved service delivery with transparency & accountability

  - Improve assessment and recovery processes of various taxes, rates and user charges

  - Better MIS

  - Effective DSS

Holistic Approach

- All departments of corporation and all civic services to be covered together rather than selective approach

Change Management

- To inculculate IT culture, motivated employees to use ICT

- Introduced adimistrative reforms

- Formation of Expert Committee (with experts from NCST, VJTI & IIT) to provide technical advice and expertise

- Formation of Steering Committee (consisting of all HODs) to provide domain knowledge and monitor the project progress

- Invitation to four IT companies (short-listed as TSPs by the State Government) to prepare pre-feasibility report.

- Selection of ABM Knowledgeware Ltd. as Total Solution Provider.

- Contract covering development of Application Software & initial support for 5 years. It is extended by further 5 years in due course.
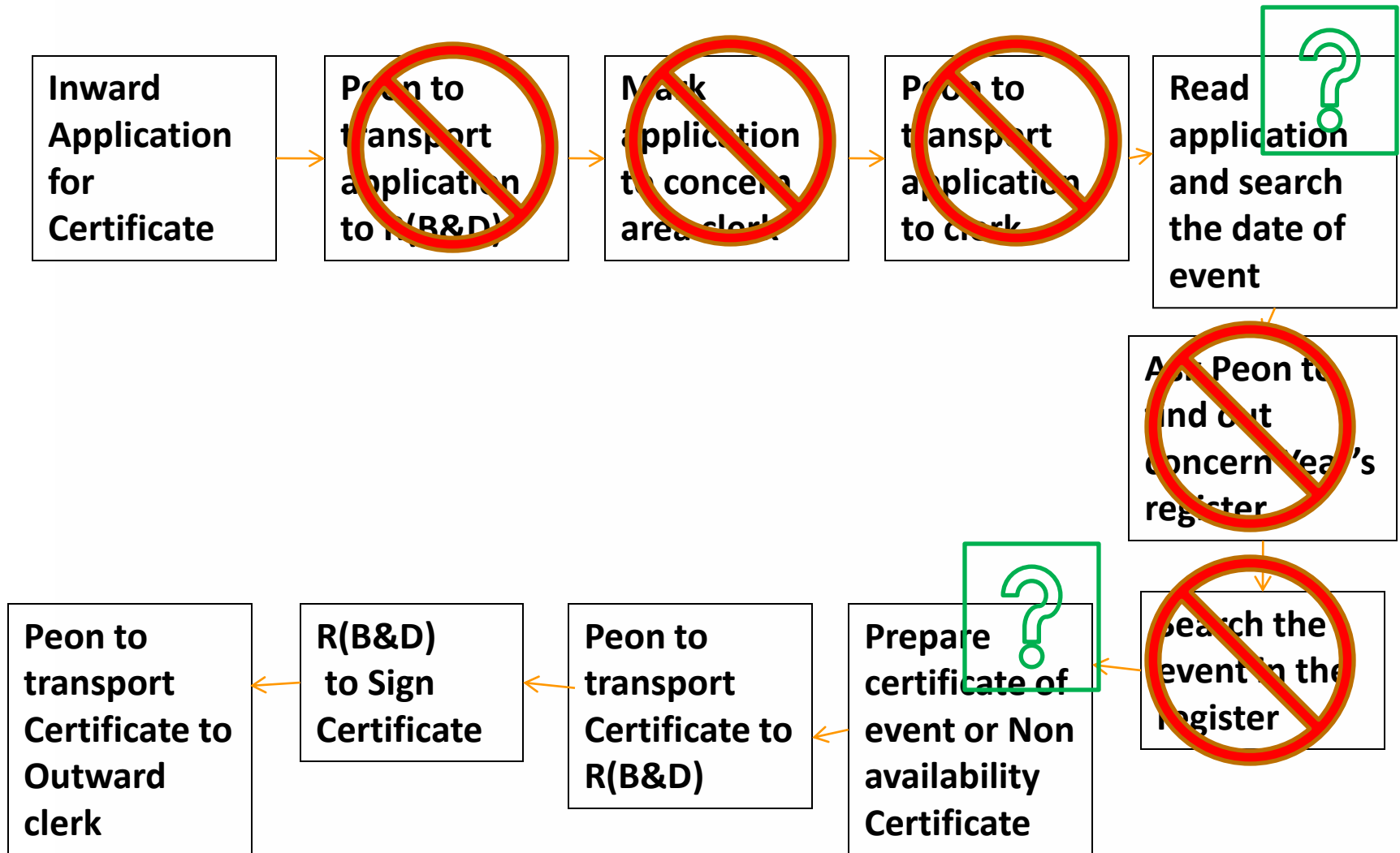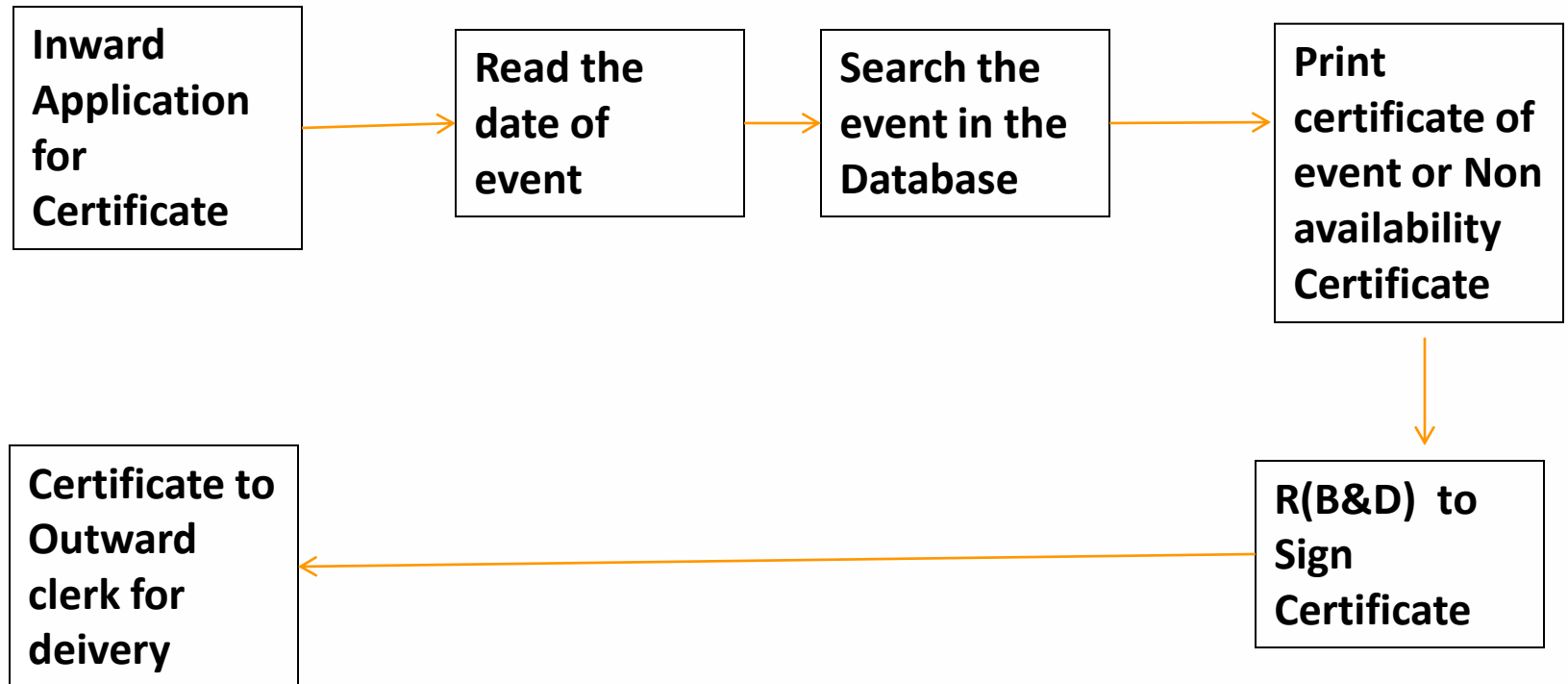
- **BPR Exercise for Automation**

  - Understand the prevailing practices

  - To understand the legal framework of the various processes

  - To review all the processes of the transactions and simplify them wherever necessary to make them amenable to automation.

  - Revisit to over 400 processes (with focus of streamlining, standardization & objectivity) with the broader process of 'Administrative Reforms'

  - BPR was done along with organization re-alignment, keeping in mind the convenience of the people and the location

  - BPR was undertaken under the expert guidance of the expert committee and several processes were changed in order to make them suitable for carrying out electronic transaction processing.

| Inward Application for Certificate | → | ~~Peon to transport application to R(B&D)~~ | → | ~~Mark application to concern area clerk~~ | → | ~~Peon to transport application to clerk~~ | → | Read application and search the date of event |

~~Ask Peon to find out concern Year's register~~

~~Search the event in the register~~

| Peon to transport Certificate to Outward clerk | ← | R(B&D) to Sign Certificate | ← | Peon to transport Certificate to R(B&D) | ← | Prepare certificate of event or Non availability Certificate |

Inward Application for Certificate → **Read the date of event** → **Search the event in the Database** → **Print certificate of event or Non availability Certificate**

↓

R(B&D) to Sign Certificate

←

Certificate to Outward clerk for deivery

Design & Development

Implementation

Training

Setting up
Training Center

User Acceptance
Testing

Development

Software Design
Document

Software
Requirement
Specification

Setting up Project
Development Cell

**Establishment
of e-Gov Cell**

M.C.

Expert Committee

Steering Committee

Requirements Analysis

Analyses user needs and develops user requirements. Create a detailed Functional Requirements Document.

Planning

Develops a Project Management Plan and other planning documents. Provides the basis for acquiring the resources...

Initiation

Begins when a sponsor identifies a need or an opportunity. Concept Proposal is created

Design

Transforms detailed requirements into complete, detailed Systems Design Document Focuses on how to deliver the required functionality

Development

Converts a design into a complete information system. Includes acquiring and installing systems environment; creating and testing databases preparing test case procedures; preparing test files, coding, compiling, refining programs; performing test readiness review and procurement activities.

Integration and Test

Demonstrates that developed system conforms to requirements as specified in the Functional Requirements Document. Conducted by Quality Assurance staff and users. Produces Test Analysis Reports.

Implementation

Includes implementation preparation, implementation of the system into a production environment, and resolution of problems identified in the Integration and Test Phases

Operations & Maintenance

Describes tasks to operate and maintain information systems in a production environment. includes Post-Implementation and In-Process Reviews.

Disposition

Describes end-of-system activities, emphasis is given to proper preparation of data.

Documentation

- Prefeasibility reports

- Feasibility reports

- SRS Document

- Software Design Document

- User Manual for each module

- Security policy

Simplified, Standardized & User-Friendly Forms

Forms for over 100+ Services

- Provision for Citizen ID
- Choice of Home Delivery Service for Citizens
- Easy to understand, Standardized forms.

Forms for over 125+ Complaints

-Easy to understand, Standardized forms in a Special Color.
-Free of cost
-Captures only required contents of the complaint
-Elimination of unnecessary ststements
- Proper categorization of complaints.

Citizens can now download all forms for complaints & Services from the Web

How we ensured Time Bound Service Delivery ?

Strict adherence to deadlines

- Once a date is committed to the citizen,
   each application is watched at all levels for
   the time remaining …
- Color code conveys the officers the time remaining

Processing of applications

- Every application is scrutinized and processed in
   an objective Question / Answer manner
- Pure merit based service

Pre-Scanned Signatures

- No wastage of time for the issue of certificates / NOCs

Paradigm Shift

Before the ICT Usage

After the ICT Usage

Information

Officer

Officer

Information
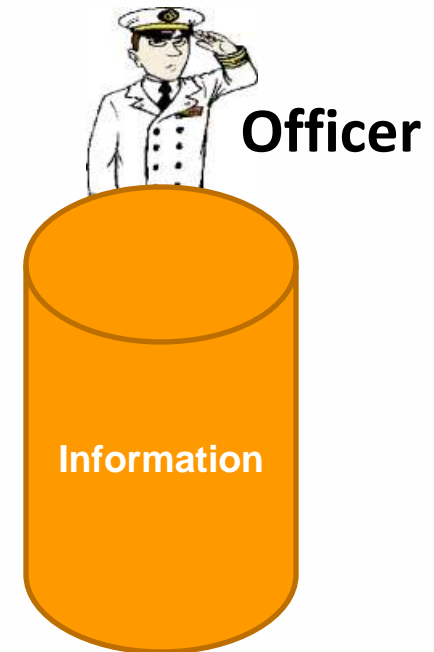
Citizen

Citizen

Officer

Citizen

CUT OUT THE MIDDLE MAN.

Software Modules at KDMC

1. **Birth & Death Module**
2. **Assessment & Property Tax Module**
3. **Water Billing and Accounting Module**
4. **Food Licenses Module**
5. **Market License Module**
6. **Accounts Module**
7. **CARE (Complaint allocation and Redressal) Module**
8. **UWMS (User workflow management system) Module**
9. **EIP (Enterprise Information Portal) with services**
10. **Citizen Facilitation Center Module**
11. **Town Planning Department Module**
12. **Health Scheme Module**
13. **Asset Register Module**
14. **City Engineer Module**
15. **Legal Module**
16. **Municipal Secretary Module**

MAINet Software Modules to be transferred at other ULBs

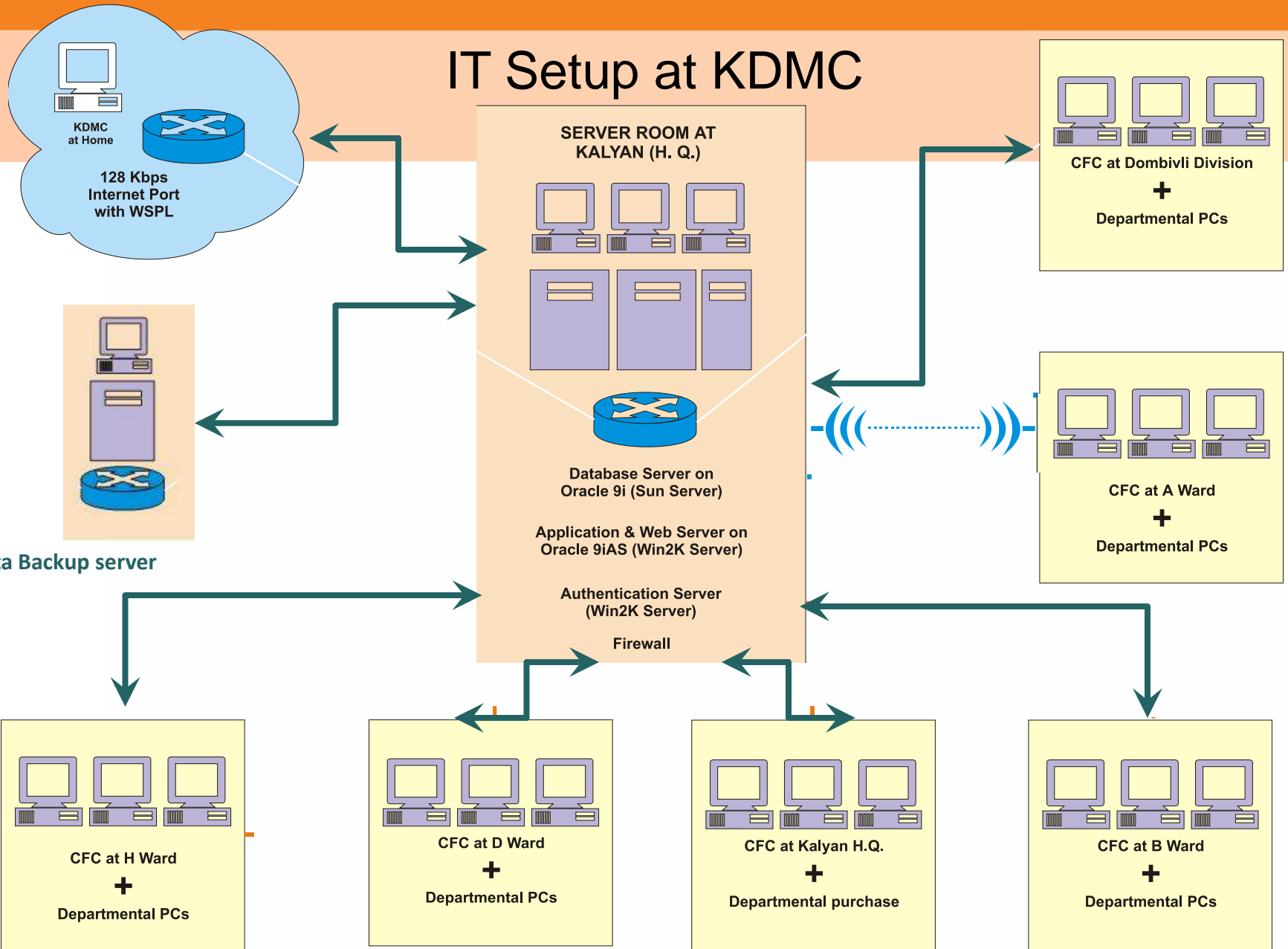## Following projects are implemented recently (Integrated with ABM software)

- [DEAS (Double Entry accounting system)](#) (ABM Ltd)

- [GIS (Geographical Information system)](#) (NIIT GIS)

- BAS (Biometric attendance system) (AXIS Systems)

- [HRMS (Human resource Management system)](#) (SAP through HCL and ABM)

- Credit card Payment Gateway (HDFC Bank)

- e-Tendering (Dhawangale Infotech Pvt Ltd)

- Spot billing for Water supplied (Cognative softwares and ABM)

List of Layers in KDMC Geodatabase

Bridges_Flyovers_Culverts	Gardens	Road_Width_Area	Utility_Landmarks
Buildings_Sector1_2	H_T_Electrical_Line	Roads	Ward_Boundary
Buildings_Sector3_7	Hospitals	Sector_Boundary	Water_Bodies
City_Survey_Boundary	KDMC_Bins	Sewer_Line_Network	Water_Keys
Development_Plan	KDMC_Boundary	Slum	Water_Pipeline
Educational_Institutes	Manholes	Stations	Water_Tanks
Electrical_Installations	Mobile_Towers	Storm_Water_Drainage	Zone_Boundary
Fire_Stations_Network	Playgrounds	Street_Lights	Open defecation spots
Footpaths	Railway_Area	Traffic_Islands	Public toilets
Garden_Areas	Railway_Line	Traffic_Signals	Bore well locations

IT Setup at KDMC

SERVER ROOM AT KALYAN (H. Q.)

KDMC at Home

128 Kbps Internet Port with WSPL

Database Server on Oracle 9i (Sun Server)

Application & Web Server on Oracle 9iAS (Win2K Server)

Authentication Server (Win2K Server)

Firewall

Data Backup server

CFC at Dombivli Division
+
Departmental PCs

CFC at A Ward
+
Departmental PCs

CFC at H Ward
+
Departmental PCs

CFC at D Ward
+
Departmental PCs

CFC at Kalyan H.Q.
+
Departmental purchase

CFC at B Ward
+
Departmental PCs

CFCs at Different Locations throughout the city

http://www.kdmc.gov.in

Implementation

I) Trial Run   [May 27, 2002 – September 23, 2002]

- Trial launch of the Citizen Facilitation Centers (CFCs) at HQ & Divisional office. This period was utilized to smooth out the teething problems.

II) Launch

- The Project was formally dedicated to the citizens on 24-09-2002 at the hands of Mr. Vilasrao Deshmukh, Former Chief Minister of Maharashtra

III) Roll-out   [March 24, 2002]

- Subsequently, 4 more CFCs were added in 24 March 2004

Before

After

Implementation Cost

- **Investment Details**   **Figures in ₹**

  - ❏ Data Center   : 0.90 Crores

  - ❏ Networking (LAN / WAN)   : 0.55 Crores

  - ❏ Computers & Peripherals   : 1.25 Crores

  - ❏ Application Software   : 1.60 Crores

  - ❏ Proj. Management, Implementation

    / Training   : 0.08 Crores

  - ❏ Civil Work & Furniture   : 1.10 Crores

  - ❏ Total   :5.48 Crores

Capital Expenditure during last 10 years

YEAR	TOTAL EXPENDTURE
2000-2001	2106650.0
2001-2002	29400136.0
2002-2003	18888691.0
2003-2004	3462061.0
2004-2005	9619714.0
2005-2006	2584717.0
2006-2007	1420150.0
2007-2008	7862796.0
2008-2009	9816452.0
2009-2010	3739164.0
2010-2011	4419890.0
2011-2012	2703567.0

TOTAL EXPENDTURE
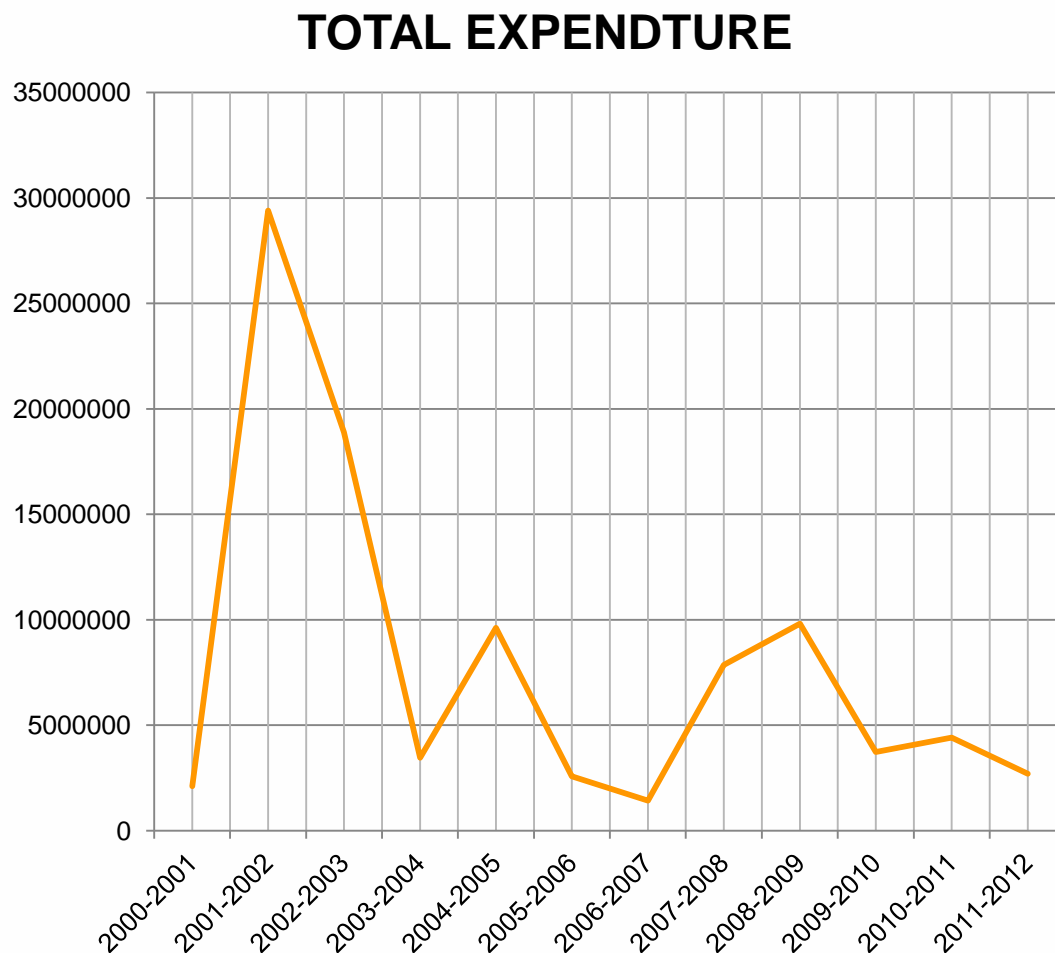
Key Result Areas

1. Assessment of Property Tax

Parameter	Before Computerization	After Computerization
Time taken for Assessment of the Property & Bill Preparation	110 days	21 days
Manpower deployed	62	24
Objection on bills (Average/year)	25% of new assessment	2% of New Assessments
Method of Tax Collection	Door-to-door, concentrated in Jan-Feb-Mar.	Citizens prefer to pay on CFC throughout year giving better liquidity

Key Result Areas

2. New Water Connection Service

Parameter	Before Computerization	After Computerization
Time taken from Application to Work Order	Over 2 Months	15 Days
Manpower deployed	About 24	About 14
No. of New Water Connections per Year	Approx. 1500	Approx. 5500

A day at Citizen Facilitation Centers
(As of 23-10-2012)
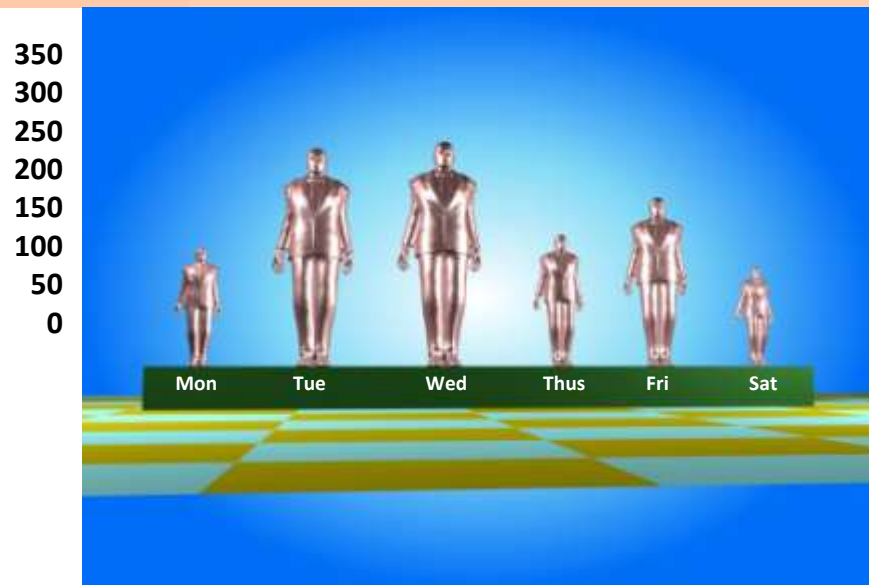
110 – 130 Service Applicants per day

30 – 40 Complaints per day

Since 27-5-2002 over 459883 services have been availed at our CFCs !!!

Since 27-5-2002 over 111838 complaints have lodged civic complaints thru CFC's

Central Government (Dept. of Administrative Reforms, 2003)

Included in Mission Mode project (MMP) of Government of India

USAID- FIRE (D) made assessment of six Municipal eGovernance project in India.

KDMC's software was given Special rating

CAPAM Award (2004)

Scotch Challenger Award (2004)

Award by Indian Express Group (2005)

CIOL-Enterprise Connect Award (2006)

DataQuest Award (2006)

National Award for e-governance by Govt. of India (Feb 2007)

Deloitte Technology Fast50 India Award, 2008

Deloitte Technology Fast500 Asia Pacific Award, 2008

Golden Icon National Award, 2006

Champion CIO Award, 2008

Intelligent Enterprise Award, 2005

SKOCH Challenger Award, 2003

10th Fastest Growing Small (below 1000 Cr.) company in India by Economic Times	**Top 10 Emerging IT Companies in India -2009 – NASSCOM**	**National Level Entrepreneurship Excellence Award, 2008**	**"WISITEX" Indian Urban Development Lead Organization – (IT) Award, 2008**
"Best e-Governance Technical Organization" Award, 2005	**SKOCH Consultancy: Best e-Governance Project Award for KDMC, 2004**	**Intelligent Enterprise Award, Colombo 2004**	**CAPAM "Certificate of Achievement Award", Singapore 2004**

Delivering services the Kalyan-Dombivli way

E-governance has to be aligned with a broader process of administrative reform and change in mindset to improve service delivery

POSTCARDS OF CHANGE

ISHER JUDGE AHLUWALIA

FOR over a decade now, we have taken pride in the great performance of India's IT sector in the global market for software development and also in the Indian corporate space. But the benefit IT can bring in delivering a variety of public services, what is often called e-governance, has been less in focus in India. The potential from this activity is enormous and it is only just beginning to be realised.

An outstanding example of what IT can do to deliver public services in Indian cities is provided by the e-governance project of the Kalyan-Dombivli Municipal Corporation (KDMC) in Thane district in Maharashtra. The project was conceived in 1999, started implementation in 2002, and is now being replicated across the 231 urban local bodies of Maharashtra. Its lessons are also being incorporated in the mission mode projects of the National e-Governance Action Plan which was launched in 2003.

KDMC covers an area of 67 square kilometres in the twin cities of Kalyan and Dombivli, about 54 km outside Mumbai. Like most municipalities, it provides services such as issuing birth and death certificates, granting permissions for building, licences for trading, water connections, and collecting payments for property tax and water. There are actually over 100 such services! Citizens interact with the municipal authorities through enquiries, registration, submitting forms, paying bills, and placing complaints. Prior to 2002, the state of service delivery at Kalyan and Dombivli was no different from any other city in India. Sometimes the residents did not know whether to go to the municipal office at Kalyan or at Dombivli to get a specific job done.

Today, the services offered by KDMC are listed in a citizen charter. Six citizen facilitation centres (CFCs) have been set up by the corporation to offer services over the counter, and they are connected online with a central server. Simplified, standardised and user-friendly forms are available at the CFCs and can also be downloaded from the web. A nominal fee is charged for some of the services.

My visits to two CFCs at Kalyan were a very pleasant experience. The centres are aesthetically designed, very efficiently served by the employees of the corporation (specially trained for the job), and bustling with activity. The use of computers with twin terminals, one facing the customer and the other facing the service provider, and both showing the result of entries on the keyboard, carries transparency a step forward.

I spoke to a happy father (with an authentic document from the hospital in hand) who was collecting the birth certificate of his daughter born two days ago. It took him 10 minutes to get the birth certificate and since he was registering within 21 days, there was no fee! There was also a very contented man in his early 30s paying property tax, a wad of notes in hand, smiling as
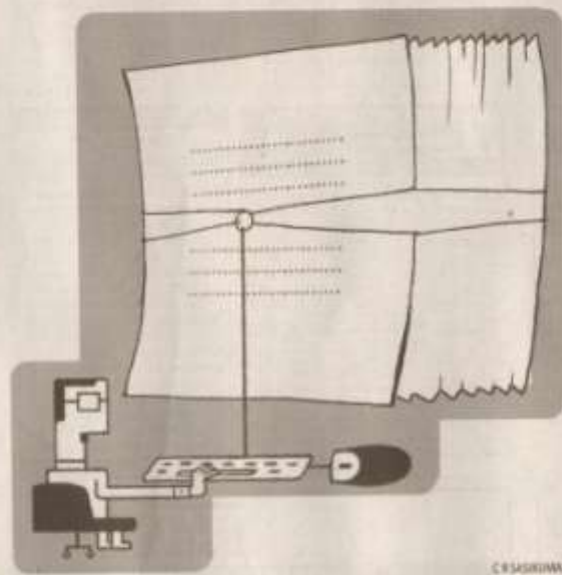
C R SASIKUMAR

he put in his registration number in the computer and seeing the correct tax demand emerge on the terminal. The fee for transfer of property is related to the ratable value of the property. Property tax and water bills can be paid online through an arrangement with some established commercial banks. These are revenue-generating propositions for KDMC.

All departmental software modules are integrated with each other and with accounts. The back-end integration of all the departments of KDMC ensures that an enquiry, submission, and/or complaint are delivered immediately at the concerned officer's desk. Once a date is committed to the citizen, each application is watched at all levels and a colour code is used to signal "approaching time out." The users can monitor the progress of their service application at every stage by going online by putting in their registration number.

The time taken for property assessment has come down from an average of 110 days before computerisation to 21 days, and for getting new water connections from over two months to 15 days. This is pretty much the story across the board as the complaint and redressal management system makes daily reports available online for all to see. E-tendering has been another major gain of the new system.

In looking for a private partner, pre-feasibility reports were invited by KDMC from four IT companies from among those empanelled by the government of Maharashtra, and ABM Knowledgeware was selected as the total solution provider for design, development and implementation of the project for the first five years, renewable at the end of the term. The solution involved revisiting and IT-enabling every facet of the corporation's working.

An expert committee with persons drawn from institutions such as IIT and TIFR was set up at the outset for guidance during the life cycle of the project. The implementation was overseen by a steering committee of heads of department under the chairmanship of the municipal commissioner. Ramnath Sonawane, head of e-governance for three years from the inception of the project to its commissioning in 2002, is now back as municipal commissioner at KDMC. As he put it, "The biggest challenge in implementation was to change the mindset of the officers." Shree Kant Singh, then municipal commissioner played a crucial leadership role in bringing this about." Sonawane further observed that "every project has to undergo three stages — ridicule, criticism and acceptance — and the trick is to persevere."

The e-governance project at KDMC worked methodically to understand the then prevailing manual business processes of the old system, and reengineered over 400 such processes with a view to aligning the same with the broader process of administrative reform. This reengineering was crucial. Employees had to learn to do things differently because IT enabled them to improve efficiency. Training helped them to make the transition from working in a backroom paper-based corporation to a proactive electronic corporation.

Financial sustainability of the e-governance project is now established. The corporation made an initial total expenditure (investment included) of Rs 5.48 crore. The annual recurring cost, on average, has been Rs 40 lakh only. These costs have been fully recovered through increases in property tax collections and increased revenues from user-charge collections at CFCs. KDMC has also received Rs 2 crore from the state government for its intellectual property.

Among the many accolades, two awards won by KDMC deserve special mention: the Commonwealth Association for Public Administration and Management (CAPAM) Award in 2004 and the National Award for e-governance from the Government of India in 2007.

The government of Maharashtra has decided to roll out the e-Municipality solution across the 231 ULBs in the state. Manu Srivastava, the principal secretary for urban development, has played a significant role in demanding and ensuring that the roll-out be done in its true spirit. KDMC has been appointed the project management consultant and ABM Knowledgeware has been assigned the task of modifying/adapting the software package to make it work for the state-wide roll-out. If the cities of Maharashtra can do this, why not others?

The writer is chairperson of ICRIER and also of the high-powered expert committee on urban infrastructure services, which submitted its report in March 2011

Benefits of the Project

Empowerment to the Citizens

- **Transparency & Accountability in Administration (Over 5.5 lakh citizen services with 98% adherence to the citizen charter)**

- **Convenience due to Single Touch Point Services (Average touch points reduced from over 3 to 1)**

- **Objectivity in decision making**

- **Easy & Transparent mechanism for lodging citizen grievances (New value proposition 'Citizen is the KING')**

Benefits of the Project

Benefits to KDMC

- **25 % increase in revenue in first year (100% ROI in one year!)**

- **Additional revenue earned through replication**

- **Enhanced productivity and thus better utilisation of existing manpower**

- **Accurate forecasting and effective planning due to MIS**

- **Improved liquidity throughout the year**

State-wide Replication of KDMC e-Governance Project

- **Replication at 231 ULBs in Maharashtra**
  Municipal Corporation – 9 / A Class Councils – 15 / B Class Councils - 61
  C Class Councils – 146

GR No	Date	Subject
GR No PMC-1106/Case No-1106/Case No 46/06/UD-33	19-10-2005	Appointment of Commissioner, KDMC as Project Management Consultant
GR No Comp 2005/Case No-05/UD-29	11-11-2005	To Replicate computerization project in all ULBs in Maharashtra
GR No PMC-1007/54/Case No 2/07/UD-33	30-05-2007	Appointment of Price Waterhouse Coopers Ltd as Program Manager
GR No BVA-1009/Case No 1412/UD - 4	28-07-2009	Permission for spending funds from 12th Finance Commission for replication of KDMC software

GoM Replication project
Current Status - Live

	Total	MAI*Net* Live
Municipal Corporations	**9**	**8**
Municipal Councils Class A	**15**	**13**
Municipal Councils Class B	**61**	**38**
Municipal Councils Class C	**146**	**89**
Total	**231**	**148**

Thank you