Final Project Report

Feasibility Study for Citizen Convenience centre (e-Seva Model) (Janseva)

for improving Citizens access to information and services.

Study done for

Gujarat Informatics Ltd.

&

Ahmedabad Municipality Corporation

(Contents valid for any municipality in State of Gujarat)
Submitted by

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e-nabling Municipal Corporation to reach out to citizens
e-governance with new paradigm in citizen services

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AMC INFORMATION SYSTEM / INFORMATION TECHNOLOGY PLAN FOR CITIZEN CONVENIENCE CENTRE

1. INFORMATION SYSTEM AND TECHNOLOGY PLAN

Introduction

At the behest of Gujarat Informatics Limited & Ahmedabad Municipality Corporation (AMC), Design Infotech Pvt. Limited (DIPL) carried out a study of AMC's existing functions and operations to formulate an Information Systems and Technology plan. During this study, DIPL used the methodology of Information Systems and Technology Planning. This methodology enables alignment of the information strategy with the business focus and ensures integrated solutions based on a corporate-wide perspective of the information requirements.

The DIPL consultants visited central office as well as all zonal offices representing AMC's operations covering all 43 wards. The consultants interacted with a wide cross section of operating and managerial staff of AMC. The interaction covered senior managers and key personnel with a view to understand the objectives, the functions and the problems of the corporation. The information gathered in the process was analysed with specific reference to the implementation of an Information Technology plan. The finding and the recommendations of the study are presented in the report titled information systems and prepared and submitted herewith.

The Report on the Information Systems and Technology plan comprises of following five points:

1. Survey of existing computerisation level of AMC.
2. Suggestion about total new hardware, software and LAN & WAN connectivity requirement for interface (citizen convenience center-Electronic Information Center) to be created.
3. Suggestion of normalization of existing database of AMC for new proposed activity.
4. Suggestion for creation of new modules of software for running citizen convenience center-Electronic Information Center for AMC in line with "e-seva" Hyderabad & "saukaryam" at Vishakapatnam at Andhrapradesh.
5. Implementation guideline.

This feasibility report presents the findings on the existing information systems, outlines the salient features and benefits of the proposed systems. It also proposes the type of hardware, software,

communications and information resource management strategies. It also proposes the implementation strategy indicating systems, phases and schedules along with budgetary estimates of investment and cost implications.

Enterprises Analysis

Major observations
In the liberalized era it is important for AMC to develop a vision and strategy for the future.

Why Janseva?
Urbanization in today's world is not talked about, but accepted. And as the population and the influx in the cities increases in geometric progression, the Municipalities still have to extend their services to citizen in an arithmetic progression. Generally, it is always endeavored to have smart sized corporation with able system in place. However, manual systems have their limitation and may not always meet the requirements.

The **Janseva** system aims to provide an Information Technology based solution to Municipalities to strengthen their services to the citizen and also open new avenues which were not possible till now due to obvious limitations of manual functioning. The premise behind **Janseva** is to create a solid IT backbone and to consolidate the Municipal Corporation to offer better service to the citizens, and to implement true **e-governance in municipal administration.** The perspective change is towards **citizen-oriented computerization** rather than only back- office computerization of the existing systems.

Governments are the principal users and disseminators of information and the general perception is that they are not able to do a good job of it. Just as the survival of any business depends upon the material and mental satisfaction of its customers, survival of governments is also hinged on the contentment of its citizens. The exploration of this interface - the areas where government and citizens meet, is vital to our understanding of where and how technology should intervene to make this interface more transparent and less bothersome for both the partners.

Presently the relationship of Citizen and Government is more of a benefactor - beneficiary. The citizens have become used to waiting in long queues, getting insensitive and harsh interim responses, greasing the palms for making anything move or get stalled. The citizens don't complain as they think that is of no avail. They feel helpless and unmotivated to be inspired into any such acts. In fact, the rot has gone

further and entered the psyche of the citizens where the reaction is either of silent submission or overt connivance to such practices.

Information is government's biggest equity and it is essential that it is used for greater public good. Quick access to this information is possible by throwing it open into the public domain. In today's ever changing and fast-paced business environment, success or failure can be measured by how well a public agency manages information. Information, whether it is created, received, or sent, documents the administration and management of your agency.

The time and energy it takes to process and send information between various sections within a department and between various departments severely impedes the decision making process and becomes a breeding ground for corruption.

The primary reason for the existence of any government is to provide services to its citizens. The Janseva application will reduce corruption, make access to services more convenient, and will improve the finances of the municipal government. Several trips to municipal government offices are needed to obtain a building permit or death and birth certificates. Complaints are not field easily and officers are inaccessible.

In paying property taxes, a citizen has to visit the municipal department to get a demand note and then make the payment. The municipality loses revenue as a result of collusion between staff and the payee to lower the demand, and due to the inability to send notices to defaulters for follow up.

In this era where government subsidies are not forthcoming it is important for the corporation to optimize the usage of all resources and focus towards moving from the red to the black, from deficit budget to surplus budget.

Efficiency, Reliability, Transparency and Scalability will be the watch words at Janseva.

Much of the interest in e-government is owed to the following theory: electronic government improves the "business of government" by creating more effective and convenient constituent-to-government, business-to-government, and even government-to-government interaction. This is a powerful proposition for the government segment, which is often asked to do "more for less."

Information Technology is all about connectivity. Connectivity brings proximity which makes the delivery of services offered by governments

become better and while talking of governments, local self-governments deserve maximum attention as they are at the cutting edge and immensely affect the daily lives of the citizens.

It is essential to develop a proper decision support system in the corporation. At present all statistical data and periodic returns are generated from the zonal offices and ward offices. However, the available information is not captured at the source, hence its accuracy is suspect and neither is its timeliness. Availability of timely structured information at the zonal offices and central office is vital for municipal operations.

Some of the existing computer based systems are developed using different tools and platforms, some of which are extinct or not ideally conductive to the operation of functions computerized. Moreover, there is no homogeneity in the data, which means no integration of the systems and finally no concrete management information systems (MIS) or Decision support system (DSS) can be established.

e-Governance
e-Governance means the provision of government programs and services through electronic service channels. A "single-window" to provide integrated, "one stop" access to government services and programs with the help Intranet, Internet, Interactive voice response and one stop civic stop services.

The term "e-governance" is further clarified in terms of its beneficiaries, which can be segmented into two primary groups:
1. *"Online services"* for external constituencies. These include groups external to, and served by, government, such as citizens and business. The primary focus of the-government revolution to date, these stakeholders are being offered simplified services by government via initiatives such as citizen-centric portals delivering interactive content such as community calendars and Frequently Asked Questions (FAQs), and transactional applications such as electronic review and payment of taxes, license fees, etc.
2. *"Government operations"* for internal constituencies. Groups within the operation of government itself – specifically, government employees. Initiatives such as electronic procurement, Web-based document management, electronic forms, and the like are all leveraging the Internet to simplify the operational demands of government.

Electronic Governance is the term that is being used as a synonym to describe an IT driven system of governance that works better, costs less and is capable of servicing the citizens needs as never before. A

Government Department could be treated "a service organization" that needs to transact with or offer its services to a very large number of consumers their public, other enterprises and with in departments.

Electronic governance may therefore be loosely defined as the use of information technology for:
- Efficient delivery of government services to citizens and business
- Improved efficiency of government administration
- Better dissemination of government information
- Improved revenue collection and budgetary controls
- Plug leakage in revenue and tax collection

In view of the above-mentioned objectives, Municipal Corporation has to take initiative in computerizing its key functional areas. The computerization areas have been chosen selectively to provide relief to the citizens. The computerization has been found focused on providing service to common man. The salient features of the computerization at Municipal Corporation would be as below.

- To provide services in a convenient reliable transparent and integrated manner.
- To establish chain of such Janseva or electronic kiosks at each of its zonal offices.
- To initiate with computerization of the services of the municipal corporation, to the citizens of the city under one roof with counters at head office
- To provide information of forms and procedure of the municipal corporation
- To take up other government service in subsequent phases if so decided by government

e-Governance stands for

e - efficiency
  - - straight line approach, from concept to actual implementation
g - gauge & gather organizational needs
o - obligatory implementation
v - versatile, it should resourceful and flexible in implementation
e - elimination of corruption
r - reliable for the organization as well as citizen, no breakdowns
n - necessity, make citizen feel that the system is necessary
a - affordable & economical solution to the government
n - needs of the citizen should be met
c - convenient to the citizen and staff – one stop – civic stop – non stop
e - efficacious & successful implementation is must

It's not the big who will eat the small; it is the fast that are going to eat the slow.

"we are a government of the people for the people. If we keep this principal clearly in mind as we accelerate e-government, and if we remember that the 'people' include government employees as well as citizens, we will achieve our goals."

e-City and e-Corporation

Building an e-City

> An e-city is a city that works together in partnership to provide easier access to services that are built around the customers and citizens, around their life events – change of address, birth of child etc, with organizations sharing their information where possible, using information intelligently, tailoring services to suit the needs of the individuals and groups.
> An e-city is a city that uses new technology to educate and train its people to achieve social inclusion and enhance social capital.
> An e-city is a city that uses new technology to help develop and attract new businesses.
> An e-city is a city that enables communities to become self reliant, supportive of each other and engaged in democracy

Building an e-Corporation

An e-corporation cannot be built alone. Nor can it be achieved simply by introducing new technology. To succeed it requires: 'joined-up working' across all public and national agencies; active support from private sector partners; redesign of services around 'end-to-end' processes; and, above all, the willingness and ability of staff, customers, and citizen to embrace the changes and exploit new opportunities.

> An e-corporation is a corporation that breaks down organizational and cultural barriers and rebuilds around the needs of its customers. Needs that are not only met by the corporation but through joined up working across public, voluntary, social, and private sector organizations.
> An e-corporation is a corporation that values and recognizes the importance of employees to deliver this agenda.
> An e-corporation is a corporation that is easier to contact and ask for services
> An e-corporation is a corporation that uses information intelligently.

> ➤ An e-corporation is a corporation that uses it resources effectively.

Objectives of the IT plan

The main objectives of the Citizen Convenience Center plan, as defined by the top management of AMC is enumerated below:

> ➤ Municipality to be more responsive.
> ➤ Corruption to be eliminated.
> ➤ Quicker services to be provided to citizens.
> ➤ Sense of involvement from Citizens and employees. This will speed up the process, save time, and is just a better way of doing business.
> ➤ 24-hour remote access to government transactions and services. Payment can be made irrespective of time frame. Payment can be made at 11.58 PM compared to 10 am. to 6 pm.
> ➤ Electronic transactions eliminates manual intervention
> ➤ Business rules within the application to empower citizens to verify the validity of a transaction.
> ➤ Payments delivered electronically reduces the corporation's cash float significantly.
> ➤ The citizen goodwill accrues to those agencies which seek to reduce the frustration associated which traditional government interaction.
> ➤ To illustrate a complete business scenario from receiving of a service request from the citizen, inter-department/agency collaboration of knowledge, to transformation of new information in to knowledge to the workforce.
> ➤ To build a solid IT backbone by integrating the entire Municipal Corporation.
> ➤ To create an intelligent Complaints- Redressal System.
> ➤ To provide a Controlling Tool to the Municipal Commissioner.
> ➤ To improve Corporation image in public due to citizen centric implementation.
> ➤ Cost reduction through Resource optimization
> ➤ HR initiative
> ➤ Growth in Revenue

Existing Information Systems

Development of information systems within AMC seem to have received adequate management support but full system integration is needed. This reflected by the expertise available within the EDP cell, both in numbers and skills, of the change in the management's perspective at the same time there is considerable enthusiasm among the employees towards computerisation. AMC has pioneered the IT implementation process among all corporations in Gujarat. Now they intend to approach

a Systems Integration Service Provider. The SISP will begin with the drawing up of a broad Information System/Information Technology plan and ensure its successful implementation and sustenance.

The major portion of the information systems available in AMC, have been developed by different external agencies, at different times, and some by AMC staff. The systems are client server based as well as PC based, but these have been developed under different platforms using data base packages.

AMC has started its computerisation of Property Tax System in 1978 on ICL 1901 machine. Then after, this system has been converted on ICIM 2904, ICIM 6000, WIPRO LANDMARK 486, PCL HALLMARK II 486 EISA based machine and from 2001 on Xeon 550Mhz Server based machine. Till 15th August, 1994, AMC was hiring computer time from outside party for processing and maintenance of the system but now AMC has purchased own in-house computers and doing their work by their professional team headed by Asstt. Muni. Commissioner. The first PC was introduced in AMC in the year 1987. Earlier data entry work was done by AMC on punch cards which were replaced by PCs in 1987. Few more systems namely Vehicle Tax billing, Water Meter Billing, Payroll, Provident Fund, Rental Income, Property Register etc. were introduced step by step after 1987. Over and above these, monitoring and evaluation of different capital works, Management Information System, Statistical information etc. were developed by purchasing PC-XT machines in 1988. In 1990, few more PC-286 and PC-386 machines were purchased and Financial Accounting System, Legal case system, Fire tax system were developed in-house by their own staff.

System Development & Administration :
At present, AMC has following different systems.

Property Tax System : This is the oldest system which AMC has adopted. There are 9,37,000 properties of which complete billing, year end accounts, demand etc. are done by in-house Pentium base computer system. This system is developed in COBOL for batch processing mode. They have converted more than 50 programs in Micro Focus COBOL under guidance and supervision of Asst. Muni. Commissioner. In the history of AMC, first time in-house billing was done successfully. These properties are divided in different groups and groups are further divided into different wards. Group wise billing is done by AMC. It has huge printing requirement. For processing of one group it takes about 5 hours but printing of different reports for each group takes more than 24 hours on 2 line printers of 600 lpm speed. Total master data consume more than 800 MB hard disk space. It is very voluminous system. Data handling and its administration are the prime requirement of the system.

Since 1995-96 on-line property tax collection system was started at the West Zone, East Zone & Central Zone office step by step which covered 75% of total property of AMC. This on-line system was developed by consultant NIC and now it is being maintained by AMC. At present all five zones have online tax collection system at their respected zonal offices. Now it covers 100% of total property of AMC. All the systems are running in local LAN. WAN for property tax is not there.

Vehicle Tax Billing System : This is also very voluminous system having requirement of about 700 MB disk space. It has more than 8.50 lakhs vehicles to be processed and administered for billing purpose and for other reports. It is also converted into MF COBOL under supervision of iNDEXTb. They started inhouse processing and regular billing from the year 1995-98. About 90,000 Vehicles are being added every year in this system.

Water Meter Billing System : There are about 11,000 metered connection given by AMC in the city and its billing system is also made computerized. Till 1994-95 billing of this system was carried out through outside party by hiring computer time from them in COBOL but now they have converted it in MF COBOL under UNIX. This system has a heavy printing of Bills, Demand, Reading Cards, MIS reports etc. by in-house staff under Supervision & Administration of E.D.P. Dept. Billing from 1st April, 1996 is carried out in-house on Pentium based machine.

Payroll and P.F. system : This is very crucial system and it deals with the salary of about 25,000 employees. They have started converting existing system from WIPRO COBOL to **MF COBOL** and pay slip and other related reports of April, 1995 and further development are done in-house. All the programs are converted and tested thoroughly. They are crucially verified for the month of January and February, 1995. Parallel run was taken for the month of March, 1995 and from April, 1995, in-house processing has been regularized. This system has also a huge printing load.

Octroi : Octroi is the main source of income for the corporation and they have computerized it for its analysis and cross checking purposes. This system is also in batch processing mode developed in COBOL, and now they have converted it into clipper. It was planned to operate in-house by 1st April, 1995 and is successfully implemented through their programmers. Now the system is working properly. Online Octroi Recovery system is one of the most important achievements of the Municipal Corporation, Ahmedabad. The system is developed in Oracle on UNIX platform with the assistance of the National Informatics Centre, Gandhinagar. Again all Octroi check post have LAN with NO WAN.

Financial Accounting System : Municipal Corporation had initially single entry accounting system in 1992-93, But since, 1993-94, they have started double entry accounting system and from the beginning the entirely new system is made computerized and it is developed in clipper by their staff under guidance and supervision of the Asstt. Municipal Commissioner. In this system day to day data entries were being done in the accounts department from the vouchers and in the evening it was being sent for processing in the computer section. Many reports of accounting matters were developed including balance sheet, profit and loss accounts, ledger, daybook, khatavahi, funds flow analysis, etc. and Management Information System for the Commissioner and Administrator. From 1995-96 The on-line system is developed in ORACLE and is successfully implemented in the Finance Department of the Municipal Corporation.

GIS [Geographical Information System] :- Municipal Corporation has decided to go for carrying out Geographical Information System from 1997-98. The major areas being covered in this ambitious project are Water Supply, Drainage System, Sewerage System, Roads, Storm water drains, Street lights, Urban Planning & Estate, Property Tax.

It is Planned to manage,

➤ **Water Supply System :**
  - upto 3" diameter lines & above
  - Flow and pressure on 6" dia meter
  - Depth, Age, material used of pipelines.
  - Valve position, Tubewells and tubewellstations details
  - Maintenance cycle

➤ **Drainage System :**
  - Upto 6" diameter lines and above
  - Position of manholes
  - Depth, Size, age and material type of pipelines
  - Maintenance cycle
  - Details of Drainage Pumping stations of sewerage treatment plant
  - Details of by pass lines with flow direction

➤ **Details of Roads :**
  - Construction and maintenance of Roads
  - Crust & Central verge details
  - catch and manholes position
  - Footpath Water table curbs street light information
  - Tree plantation information
  - Traffic detailed information
  - Bridge details

➢ **Stormwater Drains :**
  - Detail of 12" diameter and above pipelines
  - Position of catch pits, manholes
  - Age, location and material used in pipelines
  - River out falls details
  - Desalting & maintenance schedule

➢ **Street Light Network :**
  - Details of pole Height Bracket type and Fitting used
  - Location of Junction Boxes hollow based earthing rates and section pillars
  - Information on cable used. Inter link cable, Bypass
  - Switching points with timer

➢ **TDO & Estate Planning :**
  - City survey no, TPS no, Gamtal, plot information
  - TP Roads with dimension details
  - Built up area Floor wise Plot dimension with margin, date of possession, premium price/SQMT
  - LEGAL RESERVE & LANDMARK OR PLOT INFO
  - ENCROACHMENT

➢ **Property Tax Information :**
  - Usage wise, owner/occupier category information
  - Taxation information
  - Statistical information for specified region

This system will facilitate concern departments for decision-making. If will also help tax department for searching areas with maximum tax potential. It will also help in preparing perspective planning.

Other systems : Other small systems like fire tax system, legal cases system, census data analysis, Statistical Outline of Ahmedabad City, Project Monitoring and evaluation of capital works as well as works taken under financial assistance of various financial institutions and world bank are also computerized and Management Information Systems are developed and reports are being put up to the Municipal Commissioner regularly. These all systems are mainly batch processing and stand alone systems.

Existing Hardware and Operating Software details :

Infrastructure of Different Department :

Computer main centre :
Systems :
  1. 1 Nos. SERVER INTEL PENTIUM 200 MHz / 64 MB / 512 KB CACHE / 1.2 MB-1.44 MB FDD / 2 GB HDD / 24 X CDROM / 2

SERIAL & 1 PARALLEL PORTS / SCO-UNIX O.S./ SCO TCP-IP / ORACLE 7. 3.4

2. 2 Nos. SERVER INTEL PENTIUM 450 MHz / 32 MB / 512 KB CACHE / 1.2 MB-1.44 MB FDD / 2 x 4 GB HDD / 525 MB CTD / 48 X CDROM / 2 SERIAL & 1 PARALLEL PORTS / SCO-UNIX O.S./SCO TCP-IP / ORACLE 7.3.4

3. 2 Nos. SERVER INTEL XEON 550 MHz / 256 MB / 512 KB CACHE / 1.44 MB FDD / 2 X 9.1 GB HDD / 4/8 GB DAT / 48 X CDROM / SCO-UNIX O.S./ ORACLE 7.3.4.

4. 11 Nos SYSTEM INTEL PENTIUM 333 MHz / 32 MB / 256 KB CACHE / 1.44 MB FDD / 3 GB HDD / WINDOWS 95

5. 5 Nos. SYSTEM INTEL PENTIUM 200 MHz / 8 MB / 1 GB HDD / WINDOWS 95

6. 2 Nos. SERVER INTEL PENTIUM 333 MHz / 64 MB / 512 KB CACHE / 1.44 MB FDD / 2 x 4 GB HDD / 2/4 GB CTD / 32 X CDROM / 2 SERIAL & 1 PARALLEL PORTS / SCO-UNIX O.S./ SCO TCP-IP / ORACLE 7.3.4

7. 1 Nos. SERVER INTEL XEON 550 MHz / 128 MB / 512 KB CACHE / 1.44 MB FDD / 3 X 4 GB HDD / 4/8 GB DAT / 48 X CDROM / SCO-UNIX O.S./ ORACLE 7.3.4.

8. SERVER INTEL PENTIUM 450 MHz / 256 MB / 512 KB CACHE / 1.44 MB FDD / 2 x 4 GB HDD / 525 MB CTD / 48 X CDROM / 2 SERIAL & 1 PARALLEL PORTS / WINDOWS NT 4.0

Peripherals :
1. 1 Nos. 800 LPM Line Matrix Printer (LIPI MT 661)
   2 Nos. 600 LPM Line printer (LIPI DATALIFE)
2. 1 Nos. Colour Laser Printer (HP 5M)
3. 1 Nos. Mono Laser Printer (HP 4M PLUS)
4. 2 Nos. 9 pin 132 Coloumn Dot Matrix Printer
5. 1 Nos. HP Colour Scanner
6. 1 Nos. HP CD Writer
7. 2 Nos Hub & 1 Nos Switch

Software :
1. SCO Unix, SCO TCP-IP.
2. Novell Netware 4.11, DOS, Windows-NT/98/95.
3. ORACLE, COBOL, CLIPPER, Foxpro / FoxBase, Visual Basic, Power Builder, C++, Ms Office, Word, Excel, Access, Lotus 123, Page Maker, Corel Draw etc.

At Octroi Check Post : (Aslali, Narol-Sarkhej, Hansol, Vasna-Sarkhej, Ambli Road, Angadia, Kalol-Koba, Hathijan, Odhav)

Aslali – 2 Nos. SERVER INTEL PENTIUM 450 MHz / 64 MB / 512 KB CACHE / 1.2 MB-1.44 MB FDD / 2 x 4 GB HDD / 525 MB CTD / 48 X

CDROM / 2 SERIAL & 1 PARALLEL PORTS / 20 TERMINALS & PRINTERS/SCO-UNIX O.S./SCO TCP-IP / ORACLE 7.0

Narol-Sarkhej - 2 Nos. SERVER INTEL PENTIUM 200 MHz / 64 MB / 512 KB CACHE / 1.2 MB-1.44 MB FDD / 2 x 4 GB HDD/ 24 X CDROM / 525 MB CTD / 2 SERIAL & 1 PARALLEL PORTS / 19 TERMINALS & PRINTERS / SCO-UNIX O.S./ SCO TCP-IP / ORACLE 7.0

Hansol - 1 Nos. SERVER INTEL PENTIUM 200 MHz / 64 MB / 512 KB CACHE /1.44 MB FDD / 2 GB HDD / 525 MB CTD / 24 X CDROM / 2 SERIAL & 1 PARALLEL PORTS / 4 TERMINALS & PRINTERS / SCO-UNIX O.S./ SCO TCP-IP / ORACLE 7.0

Vasna - 1 Nos. SERVER INTEL PENTIUM 450 MHz / 64 MB / 512 KB CACHE / 1.2 MB-1.44 MB FDD / 2 x 4 GB HDD / 525 MB CTD / 48 X CDROM / 2 SERIAL & 1 PARALLEL PORTS / 4 TERMINALS & PRINTERS / SCO-UNIX O.S./ SCO TCP-IP / ORACLE 7.3.4

Amoli Road - 1 Nos. SERVER INTEL PENTIUM 200 MHz / 32 MB / 512 KB CACHE / 1.2 MB-1.44 MB FDD / 2 GB HDD / 525 MB CTD / 48 X CDROM / 2 SERIAL & 1 PARALLEL PORTS / 3 TERMINALS & PRINTERS / SCO-UNIX O.S./ SCO TCP-IP / ORACLE 7.3.4

Angadia – 1 Nos. SERVER INTEL PENTIUM 200 MHz / 64 MB / 512 KB CACHE / 1.2 MB-1.44 MB FDD / 2 x 4 GB HDD/ 24 X CDROM / 525 MB CTD / 2 SERIAL & 1 PARALLEL PORTS / 4 TERMINALS & PRINTERS / SCO-UNIX O.S./SCO TCP-IP / ORACLE 7. 3.4

Kalol-Koba – 1 Nos. SERVER INTEL PENTIUM 333 MHz / 64 MB / 512 KB CACHE / 1.44 MB FDD / 2 x 4 GB HDD / 2/4 GB CTD / 32 X CDROM / 2 SERIAL & 1 PARALLEL PORTS / 4 TERMINALS & PRINTERS / SCO-UNIX O.S./SCO TCP-IP / ORACLE 7.3.4

Hathijan – 1 Nos. INTEL SERVER PENTIUM 333 MHz / 64 MB / 512 KB CACHE / 1.44 MB FDD / 2 x 4 GB HDD / 2/4 GB CTD / 32 X CDROM / 2 SERIAL & 1 PARALLEL PORTS / 4 TERMINALS & PRINTERS / SCO-UNIX O.S./ SCO TCP-IP / ORACLE 7.3.4

Odhav – 1 Nos. INTEL SERVER PENTIUM 333 MHz / 64 MB / 512 KB CACHE / 1.44 MB FDD / 2 x 4 GB HDD / 2/4 GB CTD / 32 X CDROM / 2 SERIAL & 1 PARALLEL PORTS / 6 TERMINALS & PRINTERS / SCO-UNIX O.S./ SCO TCP-IP / ORACLE 7. 3.4

At Tax Office : (West Zone, East Zone, Central Zone, North Zone, South Zone)

West Zone - 1 Nos. SERVER INTEL SERVER PENTIUM 200 MHz / 64 MB / 512 KB CACHE / 1.2 MB - 1.44 MB FDD / 8 GB HDD / 525 MB CTD / 32 X CDROM / 8 TERMINALS & PRINTERS / SCO-UNIX O.S./ORACLE 7.3.4.

East Zone - 1 Nos. SERVER INTEL PENTIUM 200 MHz / 64 MB / 512 KB CACHE / 1.2 MB - 1.44 MB FDD / 8 GB HDD / 525 MB CTD / 32 X CDROM / 8 TERMINALS & PRINTERS / SCO-UNIX O.S./ORACLE 7.3.4.

Central Zone - 1 Nos. SERVER INTEL XEON 550 MHz / 128 MB / 512 KB CACHE / 1.2 MB - 1.44 MB FDD / 1 X 4 & 2 X 9.1 GB HDD / 4/8 GB DAT / 48 X CDROM / 8 TERMINALS & PRINTERS / SCO-UNIX O.S./ORACLE 7.3.4.

South Zone - 1 Nos. SERVER INTEL PENTIUM 333 MHz / 64 MB / 512 KB CACHE / 1.2 MB - 1.44 MB FDD / 2 X 4 GB HDD / 2/4 GB CTD / 32 X CDROM / 8 TERMINALS & PRINTERS / SCO-UNIX O.S./ORACLE 7.3.4.

North Zone - 1 Nos. SERVER INTEL PENTIUM 333 MHz / 64 MB / 512 KB CACHE / 1.44 MB FDD / 2 X 4 GB HDD / 2/4 GB CTD / 32 X CDROM / 5 TERMINALS & PRINTERS / SCO-UNIX O.S./ORACLE 7.3.4.

At Stores : (Central Medical Store, Central Store, Central Workshop, Light Store)
Central Store - AMD K6-2 500 MHz / 64MB / 10GB HDD / 1.44 - 1.2 FDD / WINDOWS 95 / DOS / CLIPPER / FOXPRO / 2 PRINTER.

Central Workshop - AMD K6-2 500 MHz / 32MB / 10GB HDD / 1.44 - 1.2 FDD / WINDOWS 95 / DOS / CLIPPER / FOXPRO / 2 PRINTER.

Central Medical Store – MII 300 MHz / 32MB / 4.3GB HDD / 1.44 FDD / WINDOWS 95 / DOS / CLIPPER / FOXPRO / 9 PRINTER.

1 Nos. SERVER INTEL PENTIUM 800 MHz / 256 MB / 256 KB CACHE / 1.44 MB FDD / 3 X 9.1 GB HDD / 2/4 GB DAT / 52 X CDROM / WIN NT 4.0 / CLIPPER / FOXPRO

6 Nos. SYSTEMS CELERON 600 MHz / 64 MB / 256 KB CACHE / 1.44 MB FDD / 20 GB HDD / WINDOWS 98

Light Store - INTEL PENTIUM 150 MHz / 16 MB / 512 KB CACHE / 1.2 MB - 1.44 MB FDD / 1 GB HDD / 1 PRINTER / WINDOWS 95 / CLIPPER / FOXPRO.

At Registration of Birth and Death Office :
1 Nos. SERVER INTEL PENTIUM 450 MHz / 32 MB / 512 KB CACHE / 1.2 MB - 1.44 MB FDD / 2 X 4 GB HDD / 525 MB CTD / 48 X CDROM / 5 PRINTERS / NOVELL NETWARE 4.11 / CLIPPER / FOXPRO

4 Nos. SYSTEM 486 DX/2 / 4 MB / DISKLESS

At Gumasta Dhara :
1 Nos. SERVER INTEL PENTIUM 200 MHz / 32 MB / 512 KB CACHE / 1.2 MB - 1.44 MB FDD / 2 GB HDD / 2 GB CTD / 24 X CDROM / 5 PRINTERS / NOVELL NETWARE 4.11 / CLIPPER / DOS / FOXPRO.

4 Nos. SYSTEM INTEL PENTIUM 200 MHz / 8 MB / DISKLESS

At Nagari Hospital :
1 Nos. SERVER INTEL PENTIUM 800 MHz / 256 MB / 256 KB CACHE / 1.44 MB FDD / 3 X 9.1 GB HDD / 2/4 GB DAT / 52 X CDROM / WIN NT 4.0 / CLIPPER / FOXPRO / 9 PRINTER

6 Nos. SYSTEMS CELERON 600 MHz / 64 MB / 256 KB CACHE / 1.44 MB FDD / 20 GB HDD / WINDOWS 98

2 Nos. SYSTEMS CELERON 500 MHz / 64 MB / 256 KB CACHE / 1.44 MB FDD / 10 GB HDD / WINDOWS 98

1 Nos. SYSTEMS CELERON 667 MHz / 64 MB / 256 KB CACHE / 1.44 MB FDD / 20 GB HDD / WINDOWS 98

NHL Medical College :
1 Nos. SERVER INTEL PENTIUM 200 MHz / 64 MB / 512 KB CACHE / 1.2 MB - 1.44 MB FDD / 8 GB HDD / 2 GB CTD / 24 X CDROM / 1 PRINTERS / NOVELL NETWARE 4.11 / CLIPPER / DOS / FOXPRO.

1 Nos. SYSTEM INTEL PENTIUM 200 MHz / 8 MB / DISKLESS

1 Nos. SYSTEM INTEL PENTIUM 200 MHz / 24 MB / 1 x 2 GB & 1 x 8 GB HDD / WINDOWS 98
3 Nos. SYSTEMS CELERON 633 MHz / 64 MB / 256 KB CACHE / 1.44 MB FDD / 20 GB HDD / WINDOWS 98

At FAS :
1 Nos. SERVER INTEL XEON 550 MHz / 128 MB / 512 KB ON BOARD CACHE / 1.2 MB - 1.44 MB FDD / 3 X 4 GB HDD / 4/8 GB DAT / 48 X CDROM / 15 TERMINALS / 1 PRINTERS / 1 LINE PRINTER / SCO-UNIX O.S./ORACLE 7.3.4.

1 Nos. SYSTEM INTEL PENTIUM 200 MHz / 64 MB / 1 x 20 GB HDD / WINDOWS 98/ 2 PRINTER

At R.B.S., PF, Pension, FAS :
1 Nos. SERVER INTEL PENTIUM 233 MHz / 64 MB / 512 KB CACHE / 1.44 – 1.2 MB FDD / 1 X 4 & 1 X 2 GB HDD / 2/4 GB DAT / 525 MB CTD / 52 X CDROM / SCO-UNIX O.S./ ORACLE 7.3.4.

17 Nos. SYSTEMS INTEL PENTIUM 450 MHz / 32 MB / 256 KB CACHE / 1.44 MB FDD / 6 GB HDD / WINDOWS 98

At Audit :
1 Nos. SERVER INTEL PENTIUM 800 MHz / 256 MB / 256 KB CACHE / 1.44 MB FDD / 3 X 9.1 GB HDD / 2/4 GB DAT / 52 X CDROM / WIN NT 4.0 / VB 6 / 3 PRINTER

5 Nos. SYSTEMS CELERON 600 MHz / 64 MB / 256 KB CACHE / 1.44 MB FDD / 20 GB HDD / WINDOWS 98

1 Nos. SYSTEM INTEL PENTIUM 333 MHz / 32 MB / 256 KB CACHE / 1.44 MB FDD / 3 GB HDD / WINDOWS 98

At Planning :
1 Nos. SERVER INTEL XEON 550 MHz / 128 MB / 512 KB CACHE / 1.44 MB   FDD / 2 X 9 GB HDD / 4/8 GB DAT / 48 X CDROM / WINDOWS NT 4.0 / 4 PRINTER

8 Nos. SYSTEMS CELERON 566 MHz / 32 MB / 256 KB CACHE / 1.44 MB FDD / 20 GB HDD / WINDOWS 98

INTEL PENTIUM 100 MHz / 8 MB / 512 KB CACHE / 1.2 MB - 1.44 MB FDD / 1 GB HDD / 1 PRINTER / WINDOWS 95

INTEL PENTIUM 150 MHz / 16 MB / 512 KB CACHE / 1.2 MB - 1.44 MB FDD / 1 GB HDD / WINDOWS 95

At Different Department of AMC, PA & Steno of MC & Dy. MCs. :

DIFFERENT STAND ALONE PENTIUM SYSETMS & PRINTERS.

Summary Details of Existing Information Systems:

Sr no	Department / Application	Year of Implementation	Location of Implementation	System details S/w etc.	H/w details	Developed by	Application Run	Future Plans
1	Property Tax System.(Billing & recovery of Tax, Year end A/c)	1995	At All the 5 Zones.	Off-line application is in MF Cobol on SCO -Unix ———— -On-line application -Unix , Oracle, Forms 3.0	Pentium server, LTS, LP (600 LPM) , DMP, Terminal ,UPS,DG	NIC / EDP	AMC EDP	On-line appl. Conn. all the zones with HO,.
2	Vehicle Tax billing & recovery system	1995-98	At All the 5 Zones	Application is in MF Cobol / Unix		AMC EDP	AMC EDP	
3	Water Meter Billing system (Bills, Demand, Reading cards, MIS printing.)	1996		Application in MF COBOL O/s is UNIX	Pentium based M/c	AMC EDP	AMC EDP	
4	Pay Roll & PF System (About 25000 emp.)	1995	EDP	Application in MF COBOL O/s is UNIX	Pentium based M/c	AMC EDP	AMC EDP	
5	On-line FAS (Balance sheet, PL A/c, Khatawahi, Fund flow analysis etc	1995-96	Finance Dept of AMC	Unix / Oracle / Forms 3.0	Xenon server with Nodes.	AMC EDP	AMC EDP	
6	Registration of Birth & Death system	1996-97	Central Office	Fox-Pro / Clipper	Pentium M/c with Novell N/w	AMC EDP	AMC EDP	
7	Registration of Shops & Establishment	1998-99	Gumasta Dhara off at Raikhad	Fox-Pro / Clipper	Pentium M/c with Novell	AMC EDP	AMC EDP	
8	On-line Octroi recovery System	1996 onwards	Asali,Narol ,Hansol,Va sna,Ambli Rd, Angadia Koba,Odha v,Hathijan, Chiloda.	Oracle7.3.x, O/s is SCO-Unix.	Pentium server, LTS with terminal, DMP,DG (Serv + 8 Nodes)	NIC / EDP	AMC EDP	
9	GIS System for Water supply, Drainage system, Storm water drains, street light network, TDO planning	1999 onwards. (Under development)	HO and All the Zonal Offices.	Arc. Info under Unix Arc. Views under Window NT	Under consideration not yet finalised	E-Info chip , GIS South West USA.	Under Development	Maps are digitized . Data collection is yet to be completed.
10	Other Systems: Stores inventory control, Fire Tax, Legal system, Project monitoring, MIS preparation etc.	1996 onwards	AMC	Fox-Pro / Clipper Window/ Oracle/ VB	Pentium server independent Nodes.	AMC EDP	AMC EDP	On-line impleme ntation with the WAN &Central ized data system.
11	On-line Central Complaint Management system for TAX	2001	North Zone	Windows / Oracle / VB	Individu al Node	AMC EDP	AMC EDP	Complai nt manage ment for

	department.							other services of AMC
12	Citizen charter info & Application Forms distribution	2001	At All the 5 Zones & ahmedabad city.org	Web site developed by Ms. MJ Web Solutions				

General observations on the Existing Systems are as follows:

- Software development has been done on a piece-meal basis and implemented on a stand-alone mode. There has been no integrated plan for SW development as well as IT.
- Software development has not been in line with a defined process.
- Processes such as testing, quality assurance, version control, defect logging etc are hardly visible.
- No document standards seem to have used in the design and development. Different systems have different look-and-feel.
- There is very little system documentation available with respect to most of the applications.
- The technology used in the software development is, in many cases, outdated consequently there is little support available for these applications.
- The hardware is largely obsolete.
- Non existence of a clear-cut software procurement policy has resulted in non-uniform software development.
  - The present organisation structure of the EDP cell is inadequate and needs major restructuring.
  - The level of office automation has remained very low though general-purpose software such as word processors and spreadsheet solutions are used at some offices.

2. INFORMATION SYSTEM STRATEGY

Proposed Application System
Phases for Implementation :

There was a need to identity areas and technologies for implementation with the objective of improving efficiency and customer satisfaction. Some of these have been enumerated below:

1. In the first phase it is suggested to start five CCC at five zonal offices and one CCC at Law Garden. (Fig. 1-A & Fig. 1-B)
2. In the second phase, banks will be roped in to collect property and other levies of the municipality. (Fig. 2)
3. In the third phase all services is to be offered over the internet. (Fig. 3)

Implementation of all the three phases will make the system complete. (Fig. 4)

This section contains an outline of the functions of the proposed application systems. A detailed systems analysis is needed to arrive at the functional specifications of these systems. This is outside the scope of this exercise.

Following systems needs to be fully computerized and interconnected to give the total solutions. (Fig. 5)

Citizen Conveyance Center Systems

Following systems need to be implemented as suggested in the flow chart diagrams :
1. Property Tax and other dues (Fig. 6)
2. Water Connection (Fig.7)
3. Building Plan Permission (Fig. 8)
4. Birth and Death Certificates (Fig. 9)
5. Complaints and Grievances (Fig. 10)
6. Public Health and Sanitation (including Solid Waste Management)
7. Octroi
8. Business Registration and Licenses
9. Infrastructure projects
10. Tenders
11. Citizen forums
12. Advertisement Bill boards and other leases
13. GIS – Geographical Information Systems

N

To Mahesana
To Mahesana
To Gandhinagar
To Himatnagar

Chaloda
Jagapur
Chenpur
Kali
Gujarat Stadium
Kotarpur
Muthia
Gota
To Dehgam
Ranip
Sabarmati
Harisol
Sardar Nagar
Sola
Chandlodia
Sabarmati
New Wadaj
Kubernagar
Silaj
Ghatalodia
Sabarmati Ashram
Camp Hanuman
Naroda
Memnagar
Naranpura
Circuit House
Krishna Nagar
Kathwada
Thaltej
Gujarat Vidyapeeth
Duchrasan
Hatheesing Temple
Asarwa
Broadway
Gujarat University
High Court
Lal Darwaja
Potalia
Malak Saban
Nikol
Vastrapur
P.R.L
Gandhigram
Delhi Darwaja
Saraspur
Shastri Stadium
Satellite
IIM
Gujarat College
Town Hall
Sardar Bridge
AHMADABAD
Ochav
Ambli
Ambawadi Museum
Old City
Zoo
Geratpur
Shaking Minarets
Rakhial
Ring Rd.
Ram Rajya Nagar
Singarava
Jodhpur
N.I.D.
Kankaria Lake
Satyamnagar
Vasna
Patel
Balvatika
Ambawara
Mejalpur
Calico Museum
L.G. Hospital
Khokhara
C.T.O.M.
Vastral
Shah Alam Rauza
Maninagar
Maheiwalfad
Makarba
Chandola Lake
Ghodasar
Natraj
Sarkhej
Isanpur
Rainol
Sabarmati
Gyaspur
Shahwadi
Narol
Vanch
Pipalaj
Gopalpur
Vatva
Vinod
Vinobabhave Nagar
Barejadi
Hathijan
Vivekanand Nagar
Lambha
Bodadra
Asalali
Geratpur
To Vadodara

To Vadodara

Map not to Scale
Railway line

Intranet (WAN) of AMC. Phase I

Civic Centre
(Downtown)

Usmanpura
Civic Centre

Naroda
Civic Centre

Rakhial
Civic Centre

Isanpur
Civic Centre
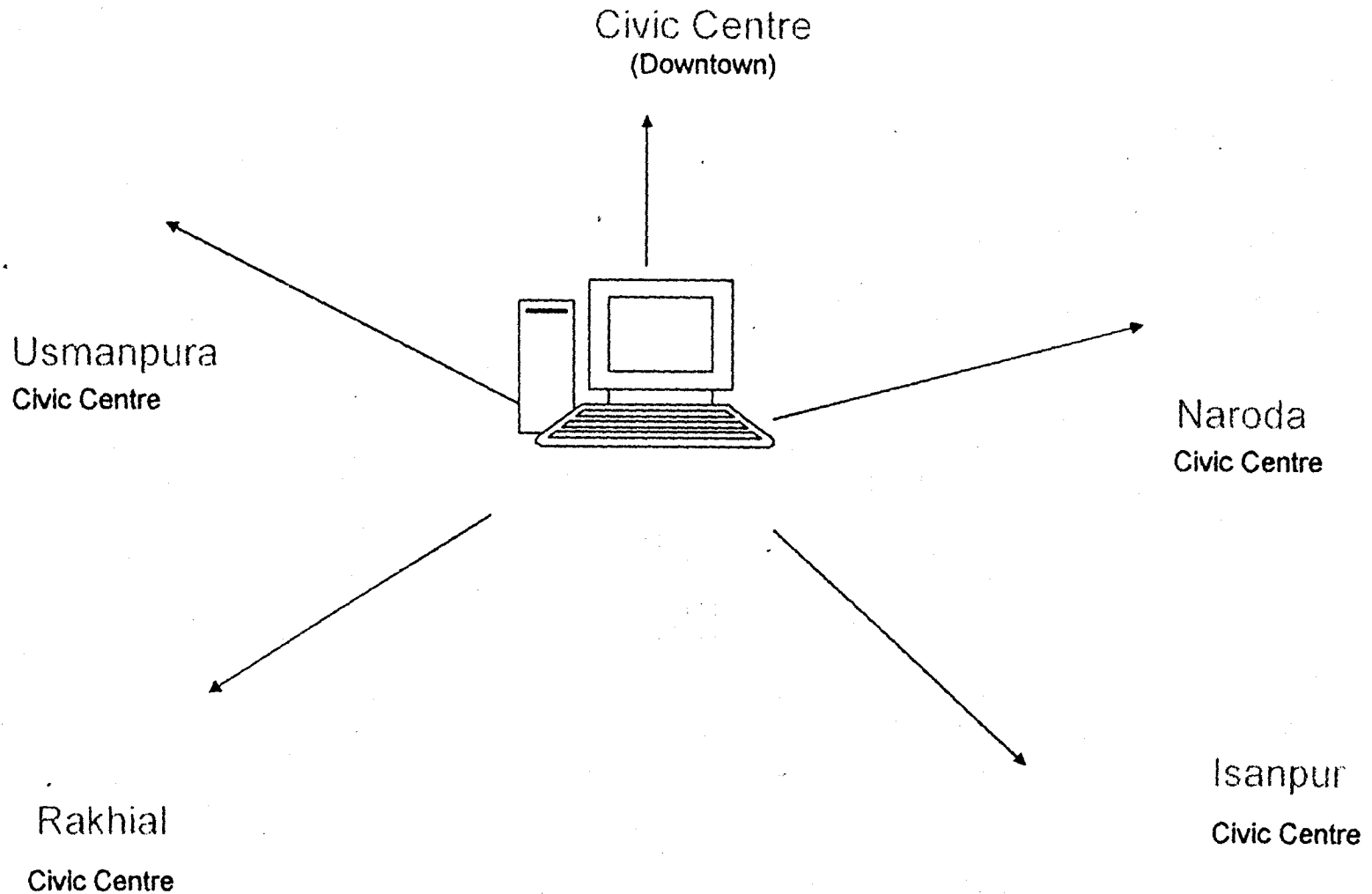
All offices will be connected via 64 kbps lease line plus dial up for back up line.

Intranet of Banks (any) with AMC – Phase II
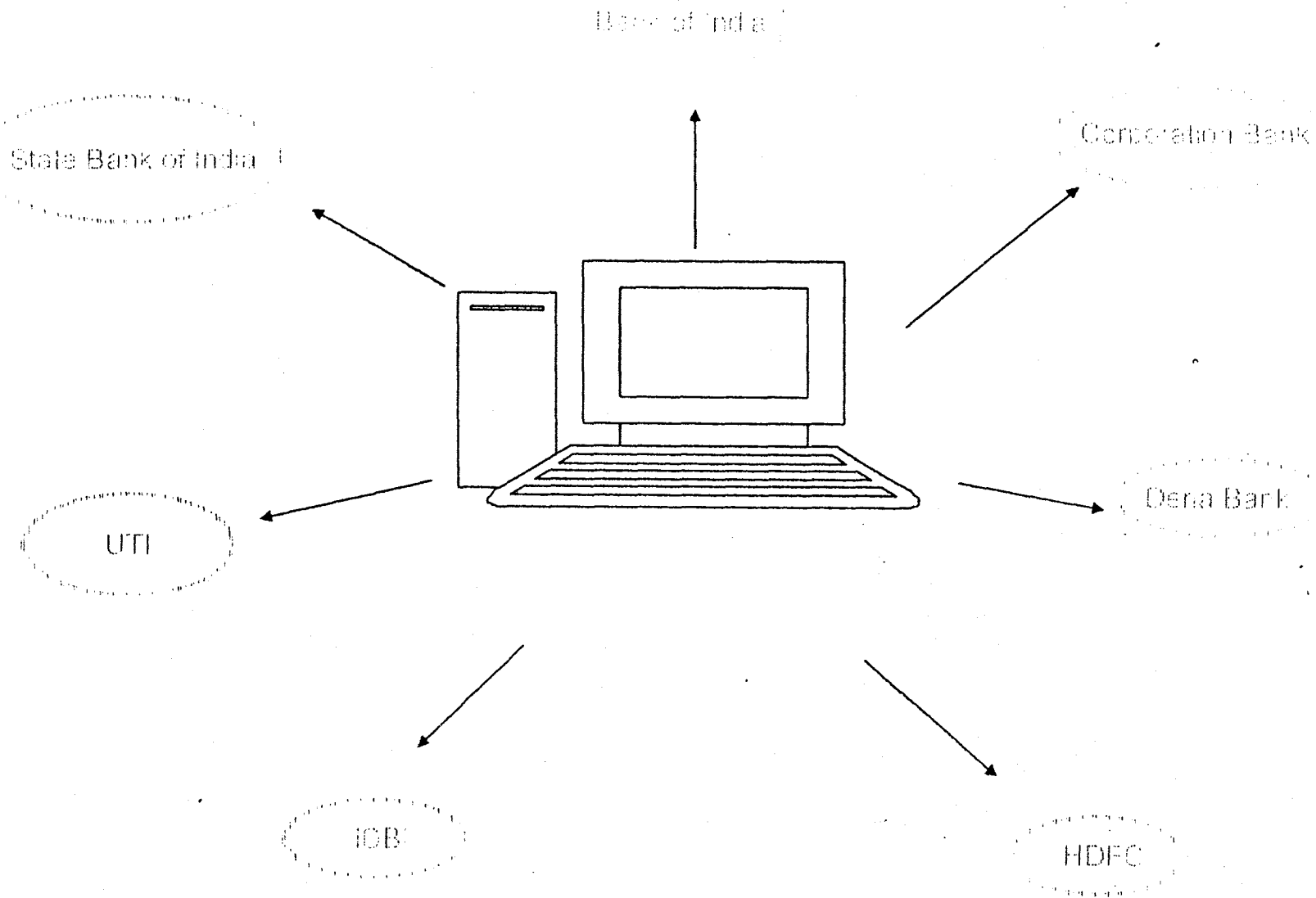
All banks will be connected via 64 kbps lease line OR dial up line.

Internet with AMC – Phase III
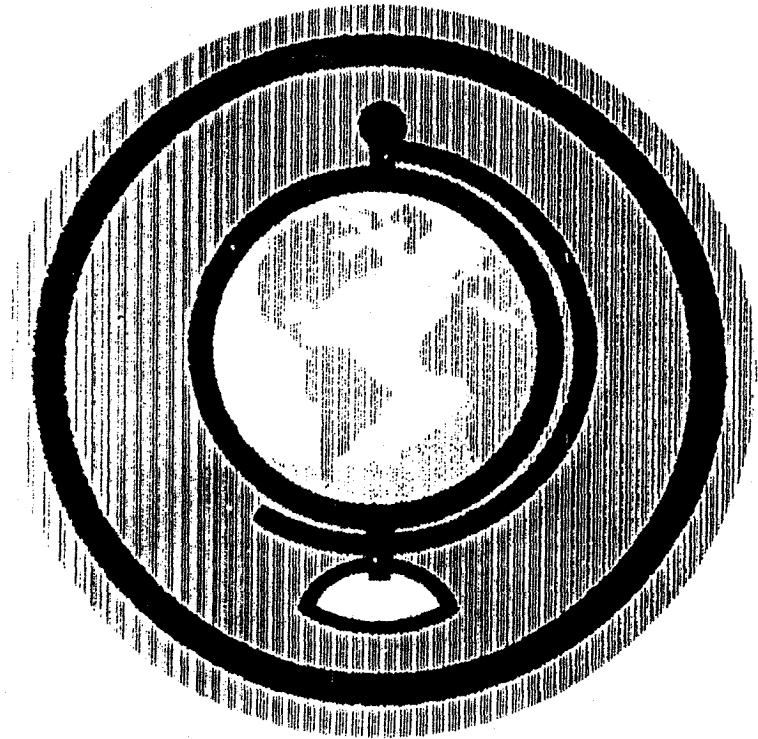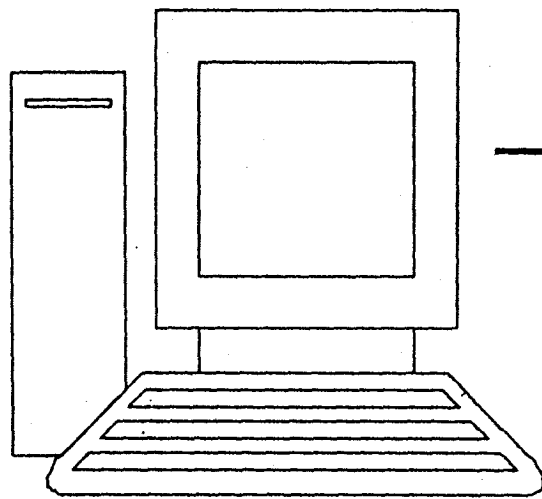
Central Monitoring
(Main Server ...

INTERNET

Intranet of AMC –
Phase I
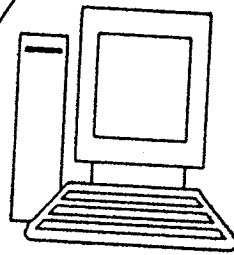
Intranet of Banks
with
AMC – Phase II

Internet with AMC
– Phase III

Online Registration & Issuance of
Birth & Death Certificates

Geographical
Information Sytem

Online filing, tracking & issuance
of building plan permission

Online misc. Registration,
Licenses

Online payments of
Property tax and other Dues

Nagrik Suvidha
Sahayak Kendra

Water Connection

Online filing of
Complaints and grievances

Online Tracking of
Infrastructure Projects

Public Health &
Sanitation

Online tenders

Octroi

Citizen Forums

INDIVIDUALS

Direct Payments

Due Verification Payment

CIVIC SERVICE CENTRE

METRO AREA NETWORK (BANKS)

INTERNET

AMC DATABASE SERVICE

CIRCLE OFFICES

(NEW ASSESSMENTS, CHANGE OF TITLES)
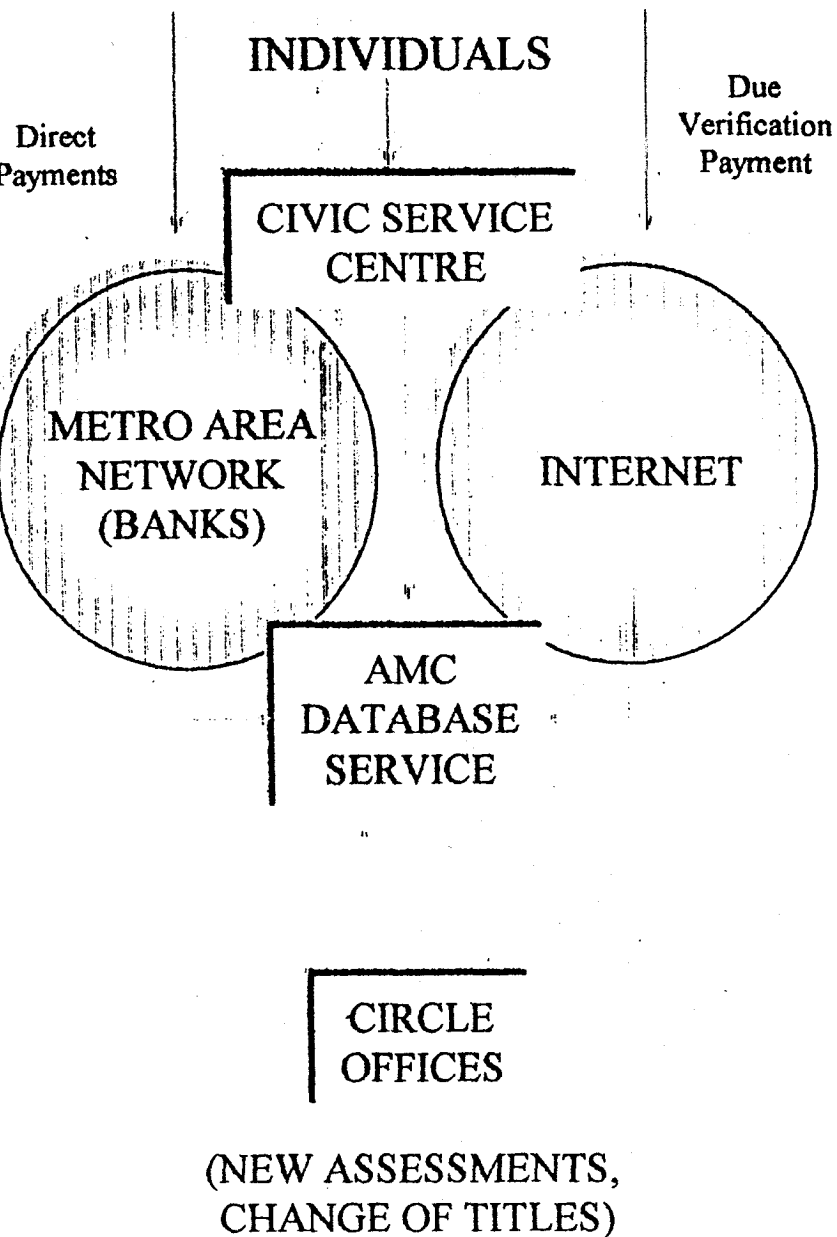
Property Tax

- Automatic fixation of property Tax based on the property Extent details
- Generation of Demand Notices
- Generation of Hearing Notices for revision petitions
- Generation of Endorsements for revision petitions after recomputing
- Transfer petitions Endorsement
- Tracking of court cases
- Automatic computation of arrears' based on court judgments.current and
- Arrear Demand maintenance
- Property Tax/Library cess Collection Breakup
- Vacant Land Tax Collections
- MIS Reports
- Ward-wise Demand/Collection/Balance
- Bill Collector wise Demand/COLLECTION/Balance etc.

APPLICATION

INTERNET

CIVIC SERVICE
CENTRE

AMC DATABASE
SERVICE

WATER SUPPLY
SECTION

WARD OFFICE

CONNECTION GIVEN
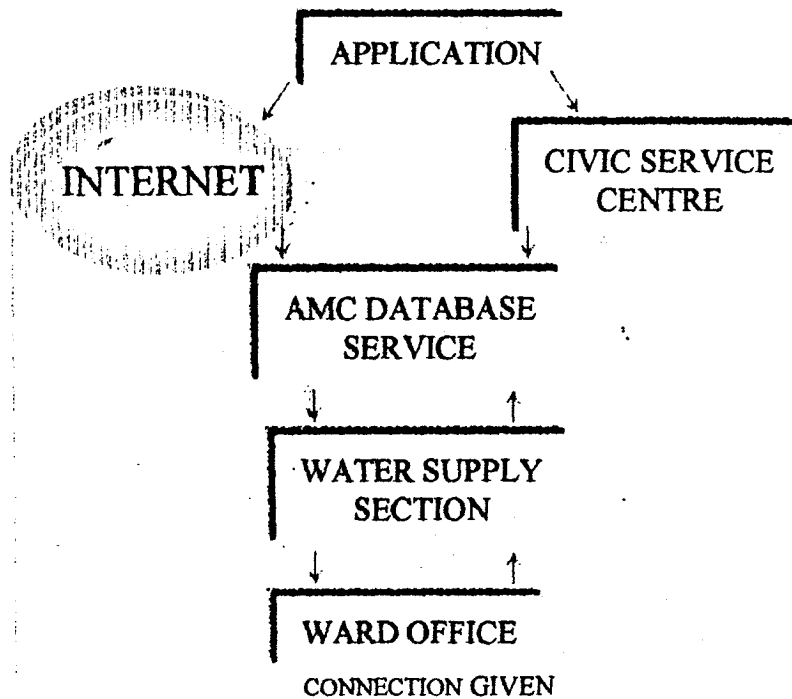
Water Connection Charges

- Application for Water connections.
- Sanction Details maintenance and automatic demand updation
- Re-connection Details maintenance and automatic and automatic demand updation
- Disconnection Details maintenance and automatic demand updation

APPLICANTS — Applications For Building Plan Approvals

INTERNET

CIVIC SERVICE CENTRE

AMC DATABASE SERVICE

TOWN PLANNING SECTION
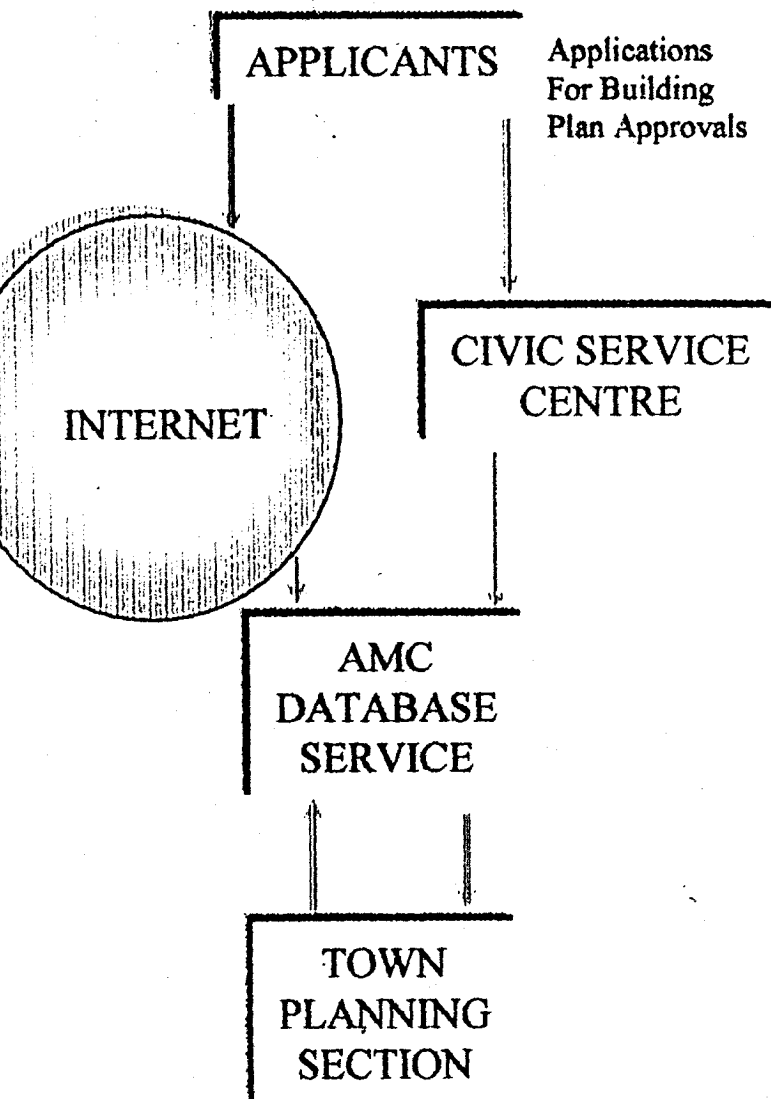
Building Approvals System:

- Automatic computation of License/Deviation fees based on the plan details
- Tracling of applications
- Issuance of License and Occupancy Certificates
- Notices for Unauthorized constructions/Deviations from the approved plans
- Revoking of permissions
- Tracking of resubmission and Extensions
- Maintenance of court case details
- Registration, Renewal and cancellation of license surveyors
- Performance monitoring of license Surveyors

Birth / Death
Reporting
For Registration

HOSPITAL
INDIVIDUAL

INTERNET

CIVIC SERVICE
CENTRE

AMC
DATABASE
SERVICE

HEALTH SECTION

WARD OFFICE
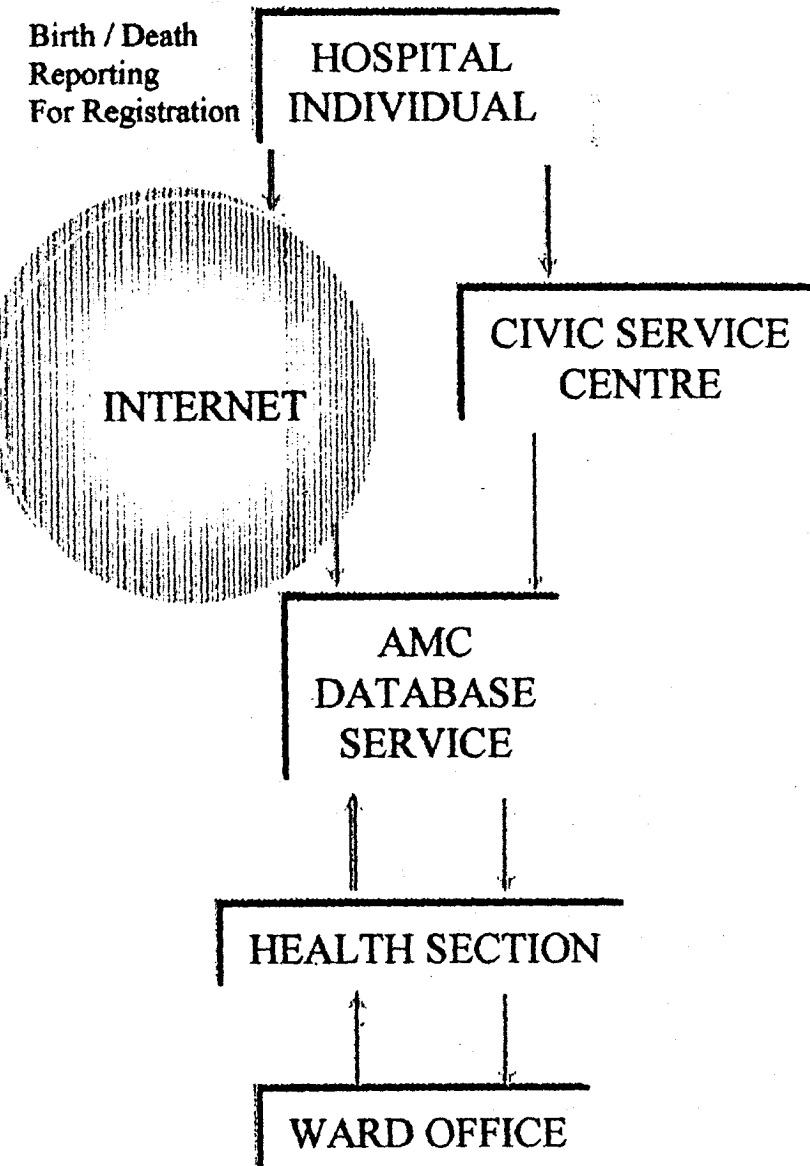
Registration of Births & Deaths system:

- Registration of hospital/Non-hospital events.
- Corrections to registrations.
- Inclusion of name on a later date
- Non-availability Certificates
- Telugu Certificates
- English Translated Certificates
- Transliteration Supported by a data dictionary

INDIVIDUALS

ISSUE / STATUS
VIEWING

INTERNET

CIVIC SERVICE
CENTRE

AMC
DATABASE
SERVICE

Redressal

HEAD OF THE
DEPARTMENT
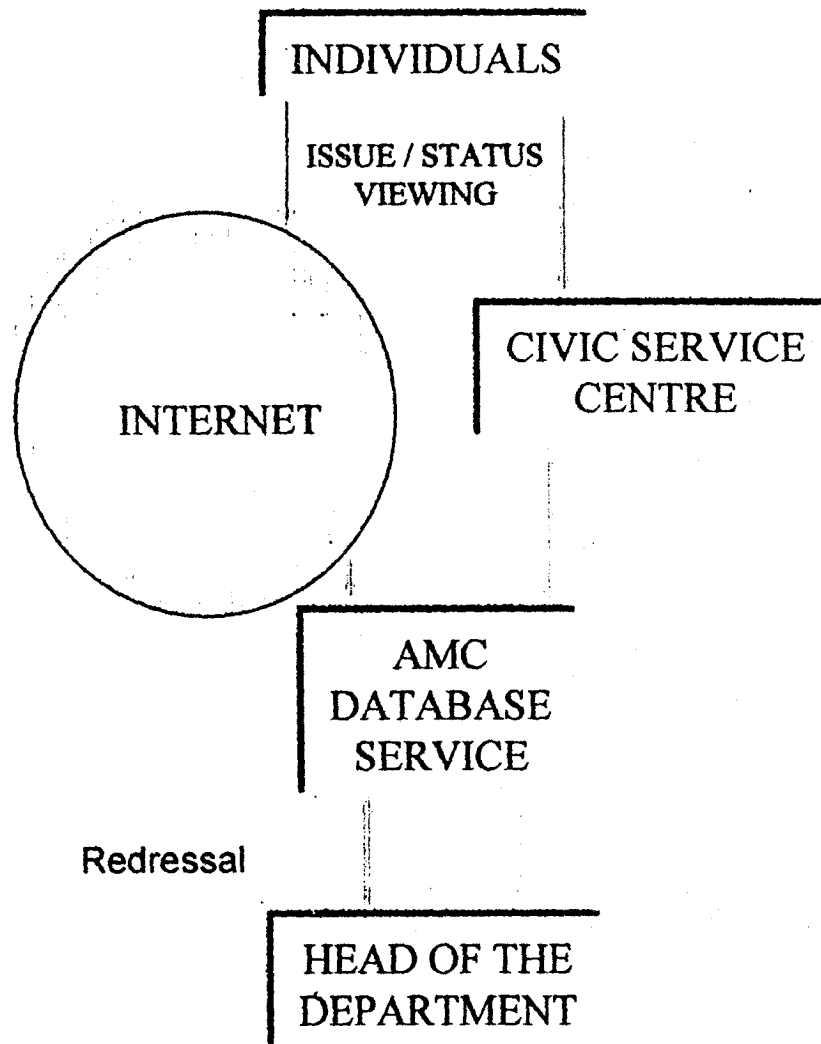
Grievances Handling Systems

- Grievances/Suggestions Registration
- Work Flow based routing of Grievances/Suggestions
- Status query of Grievances/Suggestions
- Closing of Grievances/Suggestions
- Alert mechanism
- MIS Reports

PROPERTY TAX COLLECTION

Steps to be taken

A. To fix land attributes following process need to be established with in municipal limits
   1. Aerial photography
   2. GIS mapping
   3. GPS
   4. Cadastral survey & settlement
   5. Digitization of maps

B. To fix the following
   1. To mark boundary of land parcels
   2. Map and locate each property/building
   3. Have details of each flat/property with in bldg
   4. Mark lay out of water pipes, cables, telephone cables, data cables etc.
   5. Evaluate and fix property value

C. To fix owner attributes following process need to be established
   1. Data input of all old record
   2. Archiving of data
   3. Certification of owners
   4. Biometrics of owners

D. To establish land settlement tribunals for
   1. To certify property and its ownership

E. To maintain original records duly laminated after archiving and issue title deeds.

F. Finally issuance of title deed/property card on SOMC along with related tax compliance details to be stored.

Note:
1. Actions specified in item A and B depends up on the degree of work already carried out and also to the extent required by the authorities
2. Established of land settlement tribunals on a fast track basis
3. Certification and establishment of current legal owners need to worked out.

Water Billing & Accounting System

The system aims to provide an information Technology based solution to Municipal and other Government Institutions engaged in the activity of water supply, billing and accounting to the citizens. It aims to maximize erroneous bills.

Modules
- New Connection / Changes in existing connection
- Meter Reading
- Billing
- Refund
- Disconnection
- Reconnection
- Change of category
- Change of owner
- Dispute Cases
- No Objection (NOC)
- Change of Rate
- Controlling and Monitoring
- MIS

Highlights of the System
- Efficient and Systematic procedures from meter Reading to billing.
- Maximize revenue collection and minimizes incorrect billing, etc.
- Provision for recording and providing consumer meter information and history
- Covers all the functions of water billing and accounting
- Complete On-line functioning
- Provides Anytime, Anywhere solution to the citizens if implemented over WAN.
- Citizen Interface
- Help Desk at Citizen Facilitation Center
- Common Cash Counters for convenient payment of water bills in ward /Offices.
- On-line Payment of water bills/property taxes and other charges on arrangements with local banks

Benefits
- Tested system of billing and accounting maximize revenue and minimizes wrong calculation
- Maximum Benefits to public with IT as a facilitator
- Provides a Graphical controlling Tool to the Municipal Commissioner, Hydraulic Engineer.

Birth & Death Records Management
Birth & Death Registration system provides for standard birth & death registration process being carried out by municipal corporations, councils etc

Modules
- Birth Registrations
- Hospital Notifications

- Application for Death Certification
- Death Certification
- Death Register
- MIS reports
-

Highlights
Updating of forms received form Hospitals or local health workers
Year wise generation of registration number
Designed for pre-printed as well as plain stationary
MIS available for various health monitors such as birth & death rate, mother mortality rate infant
Mortality rate etc
Citizens interface
Birth Certificate
Death Certificate

Benefits
Reduces the Birth & Death Certificate Issuance time.
Improves Corporations image in public when implemented on anytime, anywhere basis

Waste Disposal System
Currently the waste is collected by trucks of municipality and disposed in selected open lands. They are paid on monthly basis. The system is manually maintained and gives rise to lot leakages.
1. The demarcated land duly fenced.
2. Entrance and exit is form one side.
3. Each entrance has cabin, weigh bridge, computer, barrier, video camera etc.
4. As soon as the truck enters the exit point, it is weighed on the weigh bridge.
5. The vehicle number is duly entered and its total laden weight is automatically recorded.
6. While exiting the vehicle number is duly entered and weighed again.
7. The difference in weight gives the actual weight of waste disposed.
8. These details are duly recorded in a smart card and up-linked to HQ.
9. The video system records the entire event and can be up-linked to HQ for real time viewing
10. The vehicles can also be fitted with dedicated unique tags and automatic vehicle identification is possible.

Health Programms System:
- Family Welfare & Immunization programmes.

- Information about national programmes such as national social assistance programmes pulse polio, medical camps.
- Division-wise hospital details like name and address of hospital number of beds etc, will be maintained.
- The analysis report of protected water, which is brought out every week
- Number of anti-malaria operations attended by sub-unit staff will be maintained.

License & Permit Management

License & Permit management system provides for standard licensing process being carried out by municipal corporation, municipal councils etc.

Modules

License & Permits
- Registration
- Renewal
- Cancellation/Revocation
- Generation of demand
- Receipts and appropriation of collection

Inspection
- Logistics with alerts / reminders
- Inspection report generation

MIS
- Defaulters monitoring
- ABC analysis

Highlights
- Generic module incorporation all the stages for any type of license or permit activity
- In built inspection module for inspector
- Automatic demand generation
- Defaulter's monitoring
- Rates Schedule maintenance
- Traders Registration/Renewal/Closure
- Registration of Addition/Deletion of Trades
- Capturing or comments at various levels in the Registration
- process
- Automatic computation of License Free and Late Fee
- Demand generation in various stages
- MIS Reports
- Trade-wise, Division-wise and Category-wise Collection defaulters
- Monthly addition/deletion list etc.

Citizen Interfaces

Issue, Renewal cancellation and revocation of license
Application status verification
Renewal status verification

Benefits

- Control over revenue generation license & permits
- Defaulters monitoring assists in proactive action to reduce evasion cases
- Can be customizing to suite any licensing process.

Other Systems & Components :

Advertisements Systems:

- Registration, Renewal and Cancellation of Advertising Agencies
- Registration and removal of advertisements Boards
- Unique Identification of boards
- Tracking of Applications
- Automatic computation of Board Tax (parameterized)

Development Projects Systems

- Multiple Sources/Category/Division/Asst. Engineer-wise Budget
- Exhaustive projects/work details maintenance in the systems.
- Work identification
- Estimation
- Admin/technical Sanctions
- Site making
- Tender Comparative Statement from the system.
- Work order from the systems.
- Maintenance of measurement Books like to the works.
- Automatic recovery of material cost with interface to stores system.
- Tracking of payments to the contractors.
- Contractor details maintenance with multiple classes and registrations.
- MIS Report
- Work-wise progress
- Contractor performance Reports
- Multiple Sources/Category/Division/Asst. Engineer Budget vs. expenditure

Stores System:

- Support for multiple stores material maintenance
- Maintenance of Supplier details
- Maintenance of Rate Contract/Supply Agreements
- Maintenance of purchase orders and Amendments
- Tender Details for Multiple bidders
- Stock Receipts, Stock Issues and Stock Returns

- Periodic Stock Reconciliation
- Project/Work-wise Stock Issues
- Generation of Stock Register and Stock Ledger.
- Interface to Development projects systems

Commercial Complexes Systems:
- Lease Agreements maintenance for all the properties owned by Corporations
- Lease Renewals/Title Transfers/Termination of Lease Agreements
- Monthly Demand Generation including automatic interest Computation
- Appropriation of payments to Interest/principle
- Monitoring of Collections and outstanding

Finance management system:

The Finance management system is an equally important function having a major bearing on the smooth functioning of the corporation on an enterprise wide level. Proper management and accountability in the system, will improve the cash flow, minimize leakages and fraud and lay the foundation for efficient development of funds.

The Finance management system at the central office will encompass functions such as Cash collection from all sources, Cash refund, License fee collection and miscellaneous income, Cash book maintenance, Salary Disbursement, casual contract Revenue details management, petty cash Disbursement

Accounting System

The Accounting system is built on the double entry accounting system followed in the industry. It conforms to the Municipal Accounts Code system, the methodology followed by Municipal Corporation to segregate various budget heads and accounting with respect to each head.

It aims to provide all the accounting & budget monitor needs of any government /municipal department and on-line consolidation of various departments, to provide a clear picture pf the financial status of the organization.

Modules
- Receipts Vouchers
- Payment Vouchers
- General ledger
- Contractors personal Ledger
- Subsidiary Registers
- Budget Monitoring

- Loan and advances to employees
- Deposits monitoring
- Bank Reconciliation
- Trial Balance
- MIS on responsibility and account code
- MIS on budget codes

HIGHLIGHTS
Conforms to double entry standard of accounting
Built on the Account Code methodology of accounting followed by Government Organizations
Covers all the function of accounting
Complete On-line function
Provides a true picture of the current financial status of the organization
Provides On-line budget monitoring
Electronic approvals only
Caters to World Bank funded project's reporting requirement

Administration Management System
The day to day management of a huge corporation calls for extremely well planned and synchronized administration to enable the line and staff functions to interact and operate optimally. The functionalities covered in this area are public complaints and grievances, employee attendance and leave record maintenance and processing.

Multipurpose Office Information Software System
The Government and semi Government organizations have to deal with citizens on a daily basis. They receive and dispose of a large number of letters, applications and other cases every day. Coupled with this, they have a large and complex organizational structure, a complex workflow and labyrinthine rules and regulation.

The software (Multipurpose Office Information Suite) , should be easy to use, but powerful tool which should facilitate this task, by empowering each and every staff member as well as citizens.

Modules
Authentication Server
This module should enable users to build their organization structure, assign tasks, define workflows, and define access rights of each position and each individual. The 'Drag-&-Drop' interface, makes carrying out this complex task very easy.

FJMS:(File Journey Monitoring System)
This module should enable creation of a new file, history data entry of old files, attaching new references/ document to an existing file. The

module should follow the 'Tri-Letter' system of file numbering. It then enables file tracking, pendency, monitoring, etc It should have very powerful search facility to locate a file.

RJMS: (Reference Journey Monitoring System)

This module should provide for acceptance of a letter, issuing an acknowledgement, assigning an unique reference number, and subsequent tracking and locating the document across multiple departments or even organizations. The web enabled interface should enable tracking and searching the document via Internet.

PM: (Pendency Monitors)

To facilitate monitoring of workloads, disposals and pendency at department level, desk or work-group level as well as employee Level. To enable easy drill down access from summary status to individual letter of file.

Alerts & Reminder:

To facilitate officers to specify expected action and duration each time, based on this, to alert the employee as well as the officers on delayed and overdue action. Also to enable officers to send electronic or hard copy reminders and employee to view the reminders.

Management Information System

The management Information system would have the information about the daily operations of the corporation. This would provide analytical data to the management at all levels of the corporation, for the performance evaluation of the corporation and take necessary corrective action. To provide a host of statistical and analytical reports. With this module, department can discontinue maintenance of any manual or file.

Citizens Interface System

Receipt and payment counter

Benefits

Automates all accounting operation
On-line accounts monitoring
On-line budget monitoring
Secured electronic approvals
Provides multilocational consolidations

System Benefits

The Information of the proposed application systems is likely result in several tangible benefits for AMC which are mentioned below. These are potential benefits and can be achieved only if all the recommendations are implemented in the best possible way.

Improved Quality of service to customers

Automation in the areas of direct interaction with the customers will ensure faster and better service to the customer. All round improvements in operations will further contribute to customer satisfaction.

Effective Planning and Analysis Based on Factual Data and Trends

A sound Information system supported by appropriate technology solution will indeed be an asset to AMC. As appropriate decision support system and analysis models for various scenarios, effective corporate planning, pricing of services, citizen requirement forecasting for existing and new services, control analysis and investment planning can be achieved.

Qualitative Improvement

In the proposed scenario, the quality of work can be improved considerably due to the superior speed, accuracy and quality offered by a computerized system. This will lead to enhancement in the image both internal as well as external.

Faster and Accurate Management Information

An up-to-date, accurate and timely MIS developed by implementing integrated application system would assist the management in making timely and effective decisions.

Effective Control on Funds and Investments

The integration of the application systems will result in better monitoring of the funds position across the organisation to make funds available for purchase investments and development activities.

Increased Productivity

Automation of routine tasks will increase the productivity of the personnel. The existing staff will be able to process much larger volumes of business. The proposed integration of the systems will also reduce the processing time significantly due to the elimination of redundant effort.

Performance Monitoring

The information gathered by the application systems can be analysed to monitor the performance of the offices. This would provide a quick means of detecting any unacceptable variations early enough to take corrective actions. Automatic checks provided in the systems will generate warnings for abnormal conditions.

Improved job Satisfaction to Users

Effective computerisation usually results in better job satisfaction to users, as the computer performs routing computational and other repetitive tasks both efficiently and quickly.

3. INFORMATION TECHNOLOGY STRATEGY

Proposed System Distribution
AMC has 43 wards spread over a wide geographic area over the whole state of Gujarat. A distributed solution where data and processing are distributed over a number of locations. These locations can be connected to each other so as to enable replication of data.

Benefits of Proposed Technology Strategy
The proposed technology strategy will provide the following major benefits to AMC:

Support for business requirements: Most of the business requirements will be met by the strategy of providing computing facilities at the operating offices and CCC, at the same time providing for consolidation of extract and summary information at the Zonal offices and the central office for detailed analysis and management information.

Cost-effectiveness: The computer facilities provided to each office are designed to save its needs adequately, without extensive over-sizing. At the same time advanced facilities will become available to all the users.

Benefit of latest technological initiatives: The technological solutions proposed for AMC – client-server architecture, open systems, local area networking, office automation, and database technology – are the latest in technological evolution. The adoption of these technologies will enable AMC to function effectively even in the global market.

Reduced dependence on any particular vendor: the philosophy of open systems will minimize dependence on a particular vendor of hardware or software.

Insulation against changes in technology: while 100 percent insulation against changes in technology cannot be guaranteed by any solution, the client-server architecture is the best insurance against technological obsolescence.

Planning for growth: Since the solutions provide for phased expandability, the strategy provides a platform wherein growth in business can be easily accommodated.

DATABASE SOFTWARE
A detailed analysis of the functional requirements and the volumes of transaction, at each level, have led to the following recommendation;

- Oracle 9i - RDBMS for the central office

- Oracle 9i - RDBMS for the Zonal office and CCCs.

Oracle is the most versatile RDBMS; it is cost effective where the volume of transaction is high.

Considering the volume at the all locations, it is recommended that, AMC should opt for the Enterprise version of Oracle 9i – RDBMS as the RDBMS.

Operating System

The evaluation of various option available in the client server environment has led to the following suggestion:

Risc based Server : Unix
Central office, Zonal Offices : Window 2000
CCCs : Windows 2000

Software Development Environment

To summarise the requirements decided upon so far:
- OS Windows 2000
- Database Oracle 9i
- Client-server architecture with PCs with Windows 2000 clients

Use of Application Development Tools:

Using independent application development tools has the benefit of database independence, high productivity and excellent features. It has the additional advantage that many of the independent tools cater to several file systems including both RDBMS and DBMS (through ODBC connectivity).

Some of these tools considered were power builder, MS SQL Window, MS Access/ visual Basic, VC++,D2K and also java.

We recommend VC++/VB for development of the application software.

ERP Option and Usage of Standard Package

Enterprise resource planning packages had made a major impact in the Application development scenario in the latter half of the 90's. However, the key factors for its success are adaptability to change existing practices and total user involvement. In the case of AMC these would have proven to be stumbling blocks, moreover considering the number of license required it would not have been cost effective. We recommend consideration of development of customized software.

Methodology for Development and CASE Tools

We recommend Structure System Analysis and Design using Object-Oriented methodology

Remote Support

Considering the large number and spread of offices of AMC, it would be ideal to have, remote support facilities. This will involve connectivity through modems and telephone lines so that monitoring, administration and troubleshooting activity can be carried out from few of the Zonal offices/central office to the wards and CCCs.

Separate Development Servers

Separating the development servers from the production machines will ensure smooth functioning of both environments. Considering that the development will involve a large number of people, it should be ensured that suitable infrastructure for development is provided.

Computer Resources for Training

The use of computers for training of personnel will improve the efficiency of training. Various computer-based training courses could be developed to encourage more active participation in the learning process. Computers will also facilitate the course content to be kept up-to-date. A detailed training requirement for AMC will be provided as soon as feasible. However, it is estimated that the investment in an in-house training infrastructure is recommended. There may be need for a training server or it could be also shared with the development server duly partitioned. The training requirement will also be required in the future also.

Proposed Hardware Strategy

The client-server philosophy outlined in the previous section necessitates a combination of personal computers/Thin Clients at the uses' desktop as client machines. Various options were considered and our recommendation is as follows:

Central office	: Risc Based Server with Dual Processor
Zonal office	: Intel Based Server with Dual Processor
CCCs	: Intel Based Server

Leading Edge technologies

Several leading-edge technologies are now available offering great potential for improved efficiency and better customer service. Some of these technologies relevant to AMC are mentioned here. This report does not attempt to identify the innumerable applications of these leading-edge technologies. It is suggested that each of the technologies can be beneficial and their usefulness and necessity will be evaluated separately using pilot projects. Some of these technologies which may be relevant to AMC are enumerated below:

Document management and workflow automation

Document management systems (DMS) enable easy storage and retrieval of documents using the electronic media.

Statistical Analysis Packages

Citizen oriented service systems are ideally amenable to deployment of various statistical techniques and tools for purpose of budgetary allocation and monitoring.

Optical character recognition

Scanning of forms and recognition of hand written characters will avoid the need for data entry. The use of this technology will be applicable to AMC, for example, direct loading of application data from candidate resumes to the personnel database.

Electronic mail

Electronic mail facilitates communication between officers within an office as well as across offices through electronic means thereby minimizing paper flow.

Telex/Fax interfaces

In the computerized environment any communication via Faxes and telexes should be interfaced with computers. Computers can be used to fax letter and receipts to clients. Such interfaced are currently available in the market.

Expert systems technology

A branch of computer systems technology, called expert systems, enables capture of human expertise in the form of 'Rule' in a 'Rules base.' Use of the expert system technology is relevant to capture business expertise in route recommendation for solid waste management and indent forecasting from specialists and make the expertise available to a large number of personnel.

Decision systems/Executive information systems

The proposed systems are intended for support of management decision-making. Decision support and executive information systems help management by providing an easy-to use interface for retrieving and analyzing data.

Text management systems

Text management systems facilitate management of unstructured text. They may be use in heavily document-oriented functions like preparing guidelines, and legal records

Forms management systems

Citizen services oriented service applications involve use of several types of forms. The layout and wording of such forms can be stored in the computer eliminating the need for additional stationery.

Firewalls

The main purpose of a firewall system is to control access to or from a protected network (i.e., a site). It implements a network access policy by forcing connections to pass through the firewall, where they can be examined and evaluated.
A firewall approach provides numerous advantages to sites by helping to increase overall host security.

Internet based solution

An Internet based solution can be deployed in place of the existing distributed database solution. This would need a centralized high capacity Internet server, which would be accessible using the World Wide Web.

This solution could be divided into two distinct divisions:

Internet: the Internet would be the part of the AMC Website that would be accessible only to the internal employees of the corporation. A high level of data security would have to be set in place so as to avoid unauthorized access.

It is visualized that all day to day activities and business processes other that actual line operation would be carried out on the Internet itself. This would eliminate time and location limitations on date access and working. Authorized users can work away from the office and can be eventually made more productive.

Internet: the Internet part of the AMC website would be accessible to the public at large. The main function of the Internet portion would be to provide customers with the information they need and enable them to transact with the AMC without actually going to the AMC office. The system in detail is already developed earlier.

GIS/GPS

Geographic Information system [GIS]is a computer technology for managing, manipulating and analyzing geographic spatial data. A GIS application for a particular geographic area is analogous to a digitized map of total geographical area. The application is accompanied by a Geographic Database [GDB],which contains information of all distinguishing features, landmarks, place, distance statistics and political and topographic data.

On the other hand Global positioning system [GPS] is a technology that incorporates the use of satellites to pinpoint any location on the globe, within the range of a few meters, using transmissions from handsets or base units on the ground.

GIS and GPS systems work hand in hand to provide the user with the location information he needs. The GPS application calculates the position of the base unit using the transmission from the base unit. It then correlates this position on the GI system to determine the co-ordinates of the base unit's location. The GPS system then return information such as latitude, longitude, location and time zone. In addition, depending on the level of programming and customization of the application, the GPS may return additional data like temperature, humidity, weather conditions, nearest towns, nearest landmarks like hotels, restaurants, theatres etc.

The immediate application of a GPS/GIS application for the AMC would be the tracking of trucks at Solid waste management, municipal buses and property.

Smart Cards

Smart cards are a relatively newer technology for information access and information portability. Information about a particular individual or a process can be carried around easily and can be read and accessed using smart card readers.

One example of a smart card is a proximity card. This is generally a plastic card with a microchip embedded in it. The microchip contains information about either the person carrying the card or the process for which the card is being used. This information is read by a proximity card reader which is usually used to make decisions based on the information read from the card.

A foreseeable use of the smart card is its use to mark the entry and exit of vehicle in the office premises. Fuel issued to vehicles and attendance monitoring are other potential application areas of smart cards. This type of entry can be flawless, accurate as it avoids wrong time entries or approximations and can be electronically recorded.

Typical Configurations

The application is to be accessed by many points. A strong secure system is suggested. We propose a 3 tier architecture. (Fig. 11) It should be noted that AMC' offices vary greatly in size and volume of transactions.

3. Tier : At the CCCs we propose to have Pentium Xeon based server and Pentium IV as client. The configurations given below are illustrative only. The configuration of the client machine will be the same across various CCCs. Some disk space is suggested for client machines so that local date can be held, say. this is given in table

Typical client configuration at CCCs:

Component	Client at CCCs : Configuration [minimum]
CPU	P IV 1800 MHz or higher
Memory	512 MB
Disk space	40 GB
Operating System	Windows 2000
Network Component	PCI 10/100 Ethernet card with UTP Port

Typical Server configuration at CCCs:

Component	Configuration [minimum]
CPU (Dual Processor)	P IV 1.5 GHz
Memory	1 GB
Disk space	20/40 GB Raid 2
DAT Drive	4/8 GB
Floppy drive	1.44 MB
Number of terminals	15
Printer	8 HS DMP+3 link jet colour
Operating System	Windows 2000
DBMS	Oracle

2nd Tier Architecture :
Two Parallel Application Server with Two Parallel Database Sever is proposed.

A checkpoint firewall will be in front of these servers. A Web based server will be given connectivity. All CCCs Servers will be connected thru' Firewall in-built capability routers.

1st. Tier : We propose to integrate all existing departmental servers into one server. Configuration will be same as CCCs servers. This will in turn will have connectivity and access to 2nd. Tier architecture.

- Separate LAN servers, as required, to provide office automation facilities
- Enough computer resources for each department to perform end-user computer based
- Computer resources for the IT related training as well as developing computer based training for departments.
- Separate development server for the EDP staff to perform software development and maintenance.

4. COMMUNICATIONS STRATEGY

Communications are "arterial for the organisation's computing environment. To cater to the geographic spread covering the entire city of Ahmedabad, monitor and control the central office as well as zonal offices and CCCs, ensure effective route and schedule management and to make timely resource arrangements, it is imperative that AMC develops and maintains an efficient wide area communications network. The communications network should also aim at strengthening the decision-making and analysis functions.

The criteria used for evaluating different options were as follows:

Flexibility

The network should have the ability to efficiently serve the present and future requirements of AMC.

Expandability

The architecture of the network should cater to liner expandability both in terms of new offices requiring connections and also for increasing the transmission rates.

Ease of Maintenance and Support

The choice of the data communication equipment (nodes, links, interfacing equipment, etc.) required to build the network should enable easy operations, maintenance and upgrade-ability.

Availability /Reliability /Integrity /Security

The network should, as far as possible, be available for operation at all the remote locations thereby avoiding the necessity to go in for different networks at different places. It should be reliable and secure for date transfer.

Support for Electronic Mail (E-mail) Facility

E-mail is an extremely useful tool for communications within the offices, it also provides interface to access fax or telex communications.

Available Communications Options

Several electronic communication options such as Dial Up using PSTN or ISDN, leased Line, VPN, VSAT etc were considered and the fact that online data transfer is not really required our recommendation is as follows:

Dedicated Lease Line 64 kbps, 2 mbps or wireless WAN

To begin with AMC should opt for WAN using lease line or wireless WAN, which involves facility for data transmission. The days transactions can

be executed online and transferred to the central office from the zonal office and CCCs. This method would use smart intelligent software to transmit the data online or to transmit it when the lease line is up.

ISDN data transfer

As a fall back the data transfer can be done using ISDN line with dial up modems.

The communications scenario in India is rapidly changing and better options, both in terms of technology and speed, are expected to be available within the next few years. Hence, the communications strategy should be reviewed after two years, by which time sufficient volumes will also have built up, to exploit the changing scenario and the corresponding technological advances.

Janseva Network Architecture

3rd. Tier

Departmental Server

BSNL

INTERNET

2nd. Tier

Router Pool

Router

Checkpoint Firewell

Web Server

Switch

Database Server

Web Application Server

1st. Tier

Civic Centres

BSNL

Computer Terminal with Printer

Computer Terminal with Printer

— Lease Line

— ISDN Line

INTERNET ZONE

METRO
AREA NETWORK
(25 KMS WITH
10 BANKS)

Civic System

Systems to All Department
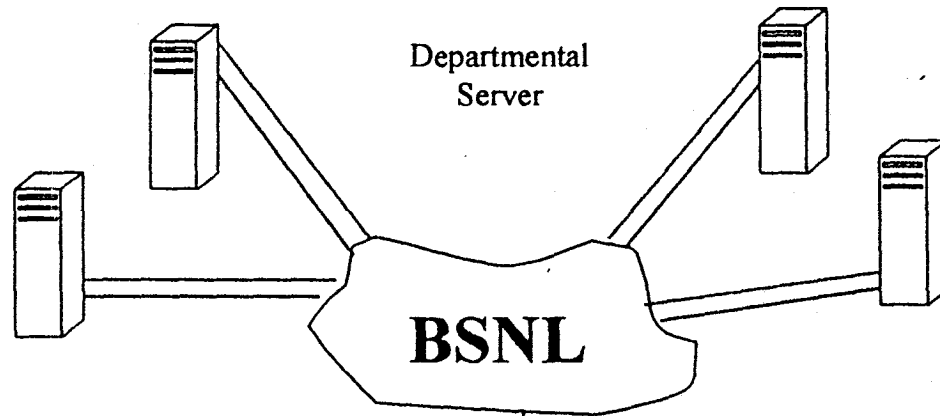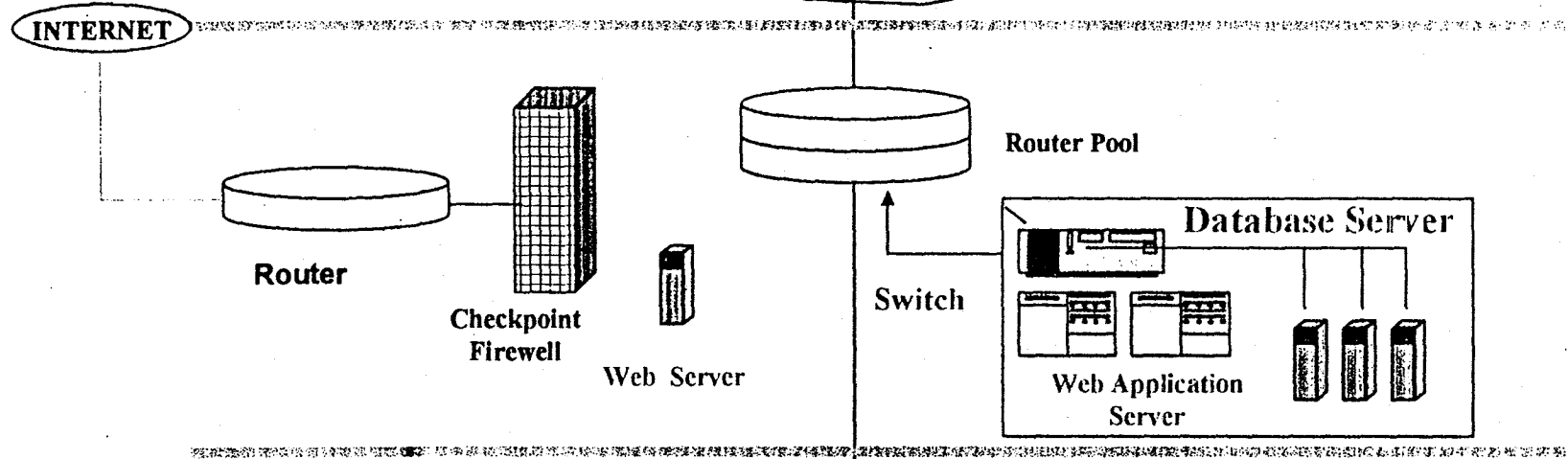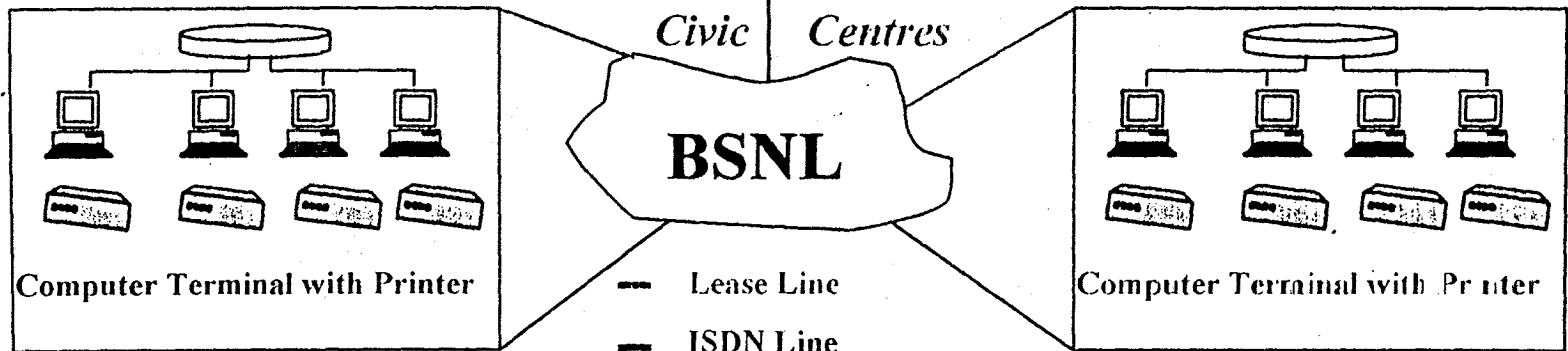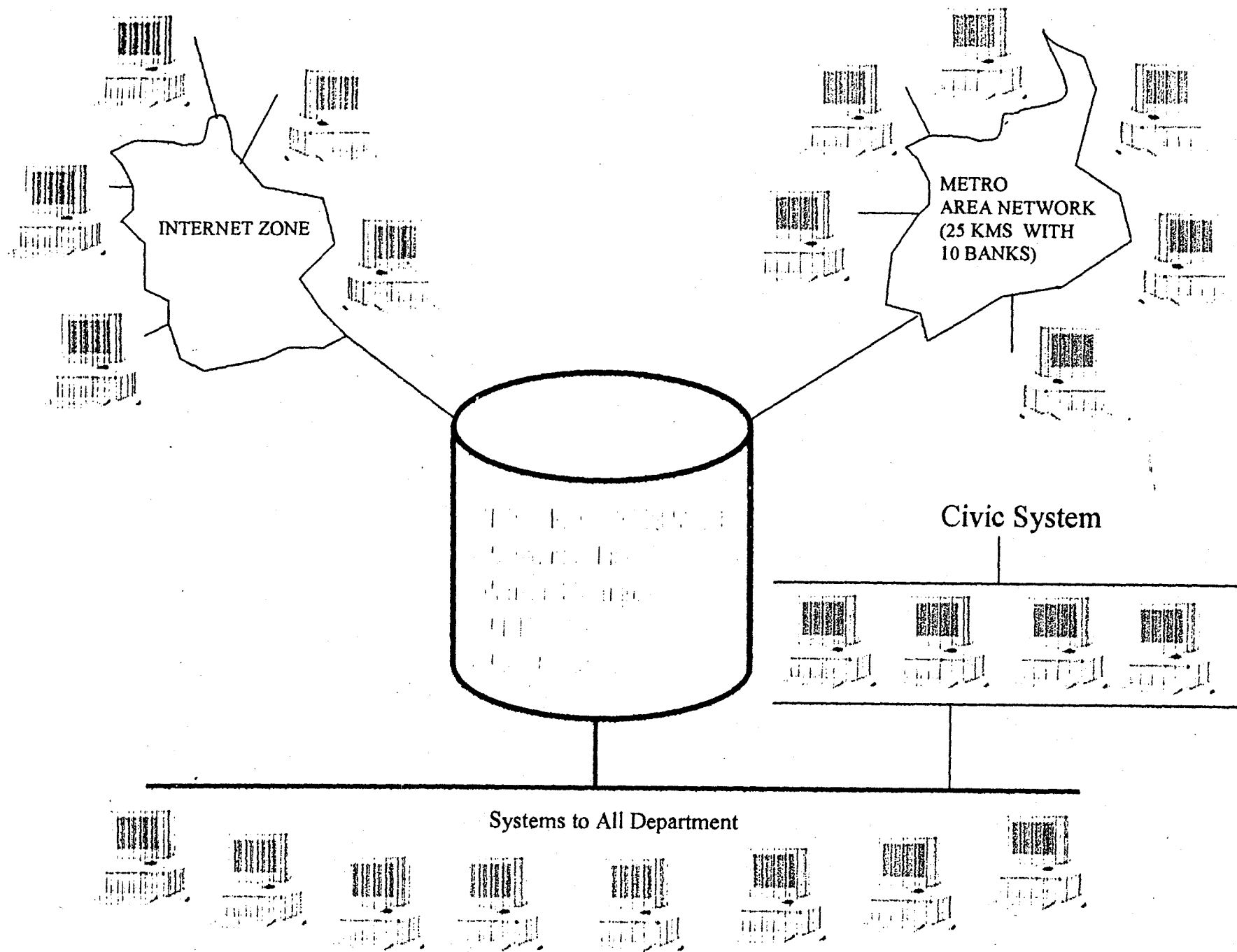
Employee Info System → Integrated Database Management System ← Health Info System

Tax & Service Info System → Integrated Database Management System ← Town Planning Info System

Engineering Info System → Financial Accounting Systems → Integrated Database Management System

Financial Accounting Systems ← Project Info System

CUSTOMER

Telephone

Walk-up

Extranet

Internet

Kiosk, digital TV

Telephone

Fax

Post

Intranet

Extranet

Cell centre

Document Imaging and workflow

Web browser interface

Customer Relationship management

MIS / EIS

Consolidated data

Financials

Housing

Social Services

Education

Revenues & Benefits

Other data stores

Partners

Data | Data | Data | Data | Data | Data | Data
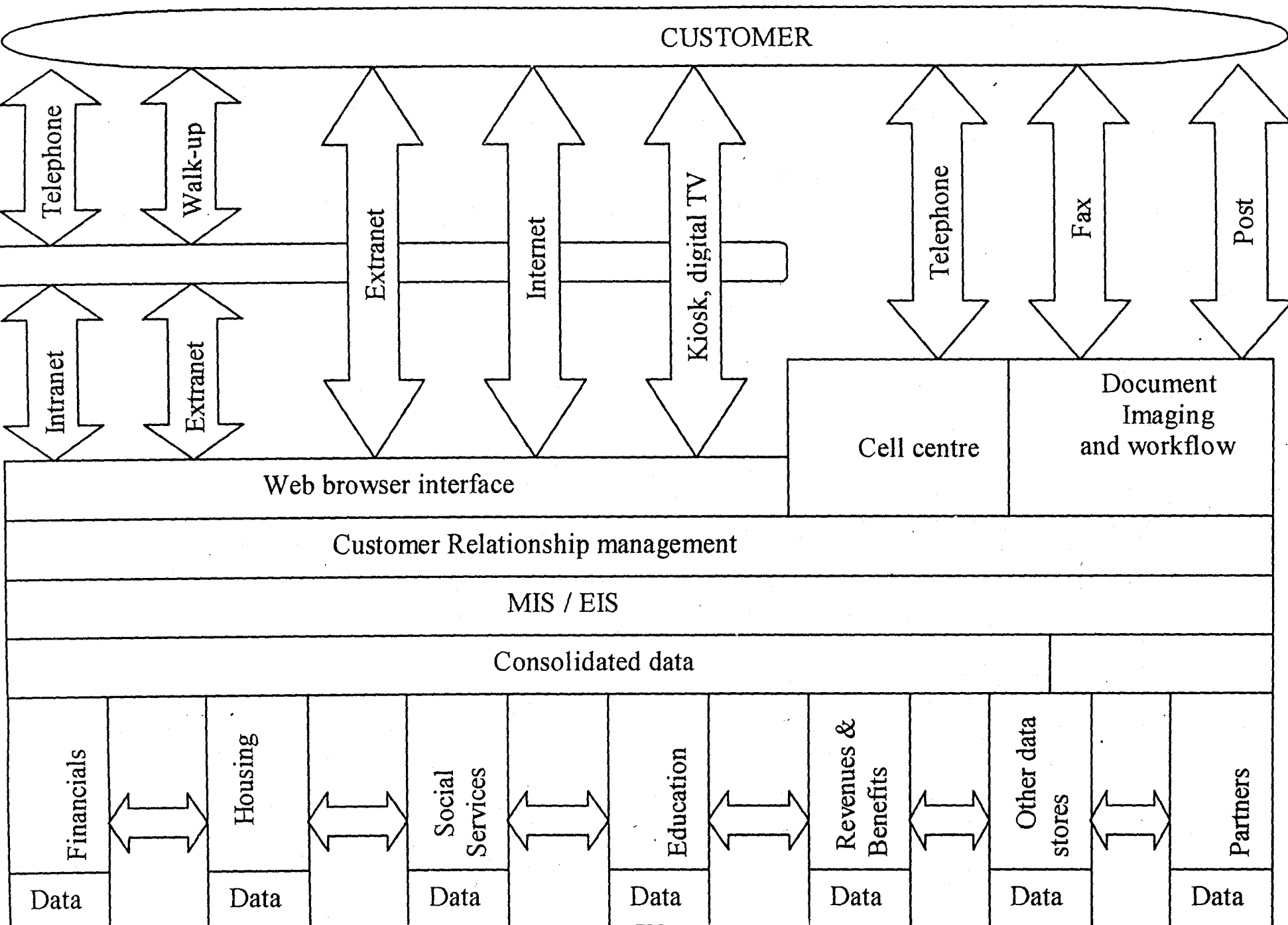
5. Proposed Implementation Strategy:
System Implementation Priorities
The development and implementation of large IT projects need to be executed in a phased manner due to factors such as financial and resource limitations and logistical constraints of implementation. Hence, the systems should be prioritized on the basis of potential benefits, Impacts, Likelihood of success, Demand and value. Looking at these factors, we propose to start and implement all the three phases together.

Office Implementation Priority:
The factors, which should decided the priority of offices, are:
- Current volume of business transacted in the unit
- Business potential in the area where the unit is located
- Motivation of available manpower to operate the proposed computerized system
- Logistics-proximity to divisional offices, large metropolitan cities
- Business support at the Depot during the transition period
- Any other special circumstances

Risk Management
Risk is view as uncertainty in the project outcome. As with any project, software development and implementation also involves risk in terms of the uncertainty of the outcome. A project can be classified to have high risk become of causes in the following major dimensions:

- There would be considerable resistance to these changes from earning departments, which stand to loose the income received from bribes.
- The departments may see the new systems as a way of coping with the pressure to perform.
- There may be a tendency to bypass the system and do paper work outside it.
- When people talk about e-government, the primary focus is often the technology. They too often ignore important "people" implications of e-government
- Moving beyond "brochureware" requires organizational commitment, not just bottom-up innovation. Significant investment may be required or infrastructure, including security and linkages between channels integration of legacy systems for transaction processing knowledge management, including keeping information current migration of organization, skills, processes and partnership to new delivery models. Channel switching may put organizational structure in question.

- e-business disconnects location of citizens, service providers challenges in scaling up delivery through new channels, and scaling down old ones, if users switch channels rapidly .
- The attitude, motivation & behavior of our staff are absolutely crucial to its successful delivery. Introduced a change agenda that challenges existing mindsets and requires new ways thinking and working. We are aiming to confront issues of behavioral style and personal competencies address the cultural changes in order to take the whole service approach.
- It may not be maintained within the budget.
- It may not be completed within the specified Schedule
- The quality of the product in terms of performance is not satisfactory
- Not easy to maintain and support

The above drivers referred to as cost, Schedule, Performance and Quality and maintenance and support have certain contributing factors. The analysis of these risk components, based on the probability of occurrence and degree of impact will lead to a number of prioritized factors that AMC should monitor and control.

Information Resource Management Strategy
The management of information systems in AMC will experience a transition from transaction oriented and application-specific processing to information as a strategic resource with an expanded role. This expanded role, termed as information Resource Management (IRM), is a concept that integrates AMC's business needs, informational technology and informational facilities within the organizational framework. A basic premise of IRM is the ability to make information available to whoever needs it, when and where it is needed.

At present the EDP cell plays more of an advisory role in the areas of HW procurement and maintenance and in SW development and maintenance. The EDP cell presently has very limited trained manpower to be able to design and develop complex integrated systems. As the IT project gets underway EDP cell will have to be more involved in all areas of Information Technology. In view of its enhanced role, it is proposed that it be designated as the Information Systems Department (ISD).

Out-Sourcing of the IT Infrastructure Management: this is also a very realistic option available to an organisation. It insulates an organisation from the critical problem of loss of manpower when the market is attractive to IT Professionals. It also has other advantages. This aspect needs deliberation and inputs from the Management.

Cost Benefit Analysis :
Total Cost of the System:
Hardware Cost
Citizen Conveyance Centre:
Venue 1: Lawgarden

Basic router	50000	1	50000
Clients	35000	15	525000
Server Xeon with DAT	250000	1	250000
UPS with 8 hour backup 2 kva redundancy	100000	1	100000
UPS with 20 min backup 750 VA + CVT	10000	15	150000
24 port 100 mbps switch	20000	1	20000
Wiring CAT VI	10000	2	20000
LAN access. Patch cord, face plate, patch max panel	20000	1	20000
Total cost at one CCC			**1135000**

Other centres:

Usmanpura	1135000
Isanpur	1135000
Naroda	1135000
Rakhial	1135000
Danapith	1135000
Total cost of CCCs	**6810000**

Main Computer Centre :

Database server	1500000	2	3000000
RAID 5	300000	1	300000
Application server	250000	1	250000
Web server	250000	1	250000
4 port	150000	1	150000
8 port	200000	1	200000
Xeon Server	250000	4	1000000
Networking & Cabling	100000	1	100000
UPS	200000	1	200000
Web server Apache	200000	1	200000
Total cost at Main Computer Centre			**5650000**

WAN Cost for 2 mbps lease line

Lease Line cost 2 mbps DOT	125000	5	625000
Router 3600	300000	1	300000
Lease line modems per pair cost	125000	10	1250000

Total WAN cost				**2175000**
Total Hardware Cost				**14635000**

Software Cost

Oracle 9i 10 user	150000	1	150000	
Oracle Enterprise 50 user	1500000	1	1500000	
Solaris	100000	1	100000	
Windows 2000 adv. Server OLP	80000	6	480000	
Windows 2000 adv. Server CAL OLP	1150	90	103500	
Developer Tools	300000	1	300000	
Total Legal software cost				**2633500**
Database digitisation cost			1000000	
Software development, implementation & integration cost			5000000	
Database Normalisation and Integration cost			1000000	
Training and Documentation cost			750000	
Total Application & content database development cost				**7750000**
Nucleus fund for S/w annual support			500000	
Total Project Cost				**25518500**

Justification of the above cost expenditure :
Main benefit will be in terms of overall citizen service satisfaction. A citizen feels that a good municipality is only as good as good roads, water supply, sewage and lights. His concept of municipality is only this. To provide all of the above, lot of resources are needed from the municipality. The resources are generated from the very people to whom the services are to be provided. If the municipality provides better services for tax collection and Octroi, citizens are bound to pay happily. Just imagine paying taxes and that too standing in a queue at the connectivity of the municipality. Even the property tax bills are some times not justified. A citizen is not going to pay taxes if he/she is not sure whether the bill is legitimate or not. Of course and there are so many loopholes for not paying.

A simple case of property tax which this author faced, is a first hand example. The author and his wife has two offices in the same building under respective names. One has area of 100 sq. mts. And the wife's office has area on 33 sq. mts. The office with area of 100 sq. mts. Has property tax bill of Rs. 20,770/- and the one with area of 33 sq. mts. has property tax bill of Rs. 15,000/-. In fact it should be 1/3 only. Also the previous year tax arrears where wrong due to faulty office measurement. Complaint procedure is so long and difficult that you have to hire agents to solve it. Total tax assessment where reduced by Rs. 2,25,000/-. Questions arise like

1. What if I had not known the municipal officers?
2. Would my complain be solved in the absence of influence?
3. Is the officer who reduced tax assessment authorised and whether he has sole discretionary powers?
4. Is the interest calculation at the discretion of the office?
5. Why cannot be the system be transparent?

I am sure there is some mistake and there is an explanation of this. But who has time to got to Municipality office and pay taxes grudgingly. If you want taxes come and get it. I am not leaving my office to pay it unless I am satisfied. OK, so you have means to enforce. Fine. I will make some excuse when your officer comes or simply not meet him or pay upfront some money and postpone my payment. Alright, you may disconnect my gutter & water connection, but, hey! the whole building has common connection. What about offices who has already paid. Municipality may seal my office but I have courts to go. And confrontation is not the answer.

My complaint got solved and I am ready to pay taxes of Rs. 3,00,000/- at a go. I am only one of the 9 Lacs fifty thousand property owners in Ahmedabad. Now imagine if one guy can pay Rs. 3 Lacs, there are property bills with interest amounting to Rs. 91483 Lacs covering more than five Lacs property owners.

Why not offer services transparently & happily?

From the following table, judge the amount of Taxes involved in disputes.

Assessment and Tax Collection (Rs. In Lacs) 2000-2001 Billing

Zone	No. of Properties	Property Principal	Interest	Total	No. of Properties
Central	2,16,801	10,144	5,586	15,730	1,28,626
North	1,63,962	7,213	4,391	11,604	99,777
South	1,53,553	9,399	5,057	14,456	77,536

East	1,95,262	7,611	4,759	12,370	1,12,073
West	1,94,970	14,837	5,279	20,116	82,995
Head Off.	25,555	8,748	4,252	13,000	11,467
Textile Mill	49	1,912	2,293	4,205	49
Total	**9,50,152**	**59,864**	**31,617**	**91,481**	**5,12,523**

We expect to solve at least 30% of the above cases and recover minimum of Rs. 60 Crores from the total outstanding of Rs. 914 Crores. This itself will cover the cost of the project.

Further the vehicle tax outstanding is of Rs. 73 Crores from 9,50,000 vehicles. Here also, no service is provided to the citizen at present. Even if one wants to pay the tax, one has to go to the head office in the city, get the bill and then pay. They have collection centres at octroi, but if one does not have bill, one just can't pay. Why can't the database be online? We propose to make it online and then anyone can pay anywhere. Here also we expect minimum collection of Rs. 3 Crores in the first year itself.

Every year the municipality records 80,000 birth entries and 27,000 death entries. Municipality collects fees for issuing Birth and Death certificates. Though this cannot be a source of revenue, cost in issuing plus additional cost can be recovered. Also, a better service to citizen.

Octroi: Large amount of Octroi is held up in clearance of 'F' form. Octroi 'F' form clearance is proposed at all CCCs.

SYSTEM IMPLEMENTATION :
It can be done by following ways :

Alternative I:
AMC provides the infrastructure of office premises. The party who provides the CCC buys the software and hardware. It then charges per transaction bases from the citizens. Sample charges taken at Hyderabad Municipality are as follows :

    1. For all the Utility Bill payments   Rs.4.75
        Water
        Property Tax
    2. For the Reservations/ Applications   Rs.8.00
        GSRTC bus reservations
        Passport Applications
    3. For Certificates   Rs.10.00
        Birth Issue & Registration
        Death Issue & Registration
        Caste Certificate

4. For Internet Payments   Rs.8.50/-

With above model, Hyderabad System Integrator was able to procure the cost of hardware as well as software in first year itself. The System Integrator has served 5,00,000/- citizens.

Disadvantage is that GIL/AMC cannot use it for other municipalities.

Alternative II:

AMC buys the hardware& software but gives the operating and running of the system to a private party. It can then pay charges for operation and running. The staff will be of the private party. Here the only danger is in accountability of AMC Services. Risks can not be taken when such a huge some of money is involved.

Alternative III:

AMC buys the hardware& software and also runs the system. Staff is of AMC. Overall system & software maintenance is done by system integrator. This is the best alternative as GIL can use the software at other municipalities. Also AMC keeps the control.

This alternative can be further implemented in following ways :
1. AMC/GIL procures the hardware by tender process.
2. AMC/GIL invites the software developer thru' tender process.
3. AMC/GIL selects the system integrator/solution provider who provides both the hardware & software. The system integrator should have rich experience in similar cases of e-Governance.

The cost of the system can be shared by GIL & AMC. Hardware procurement cost can be borne by AMC and Software procurement and development cost can be borne by GIL. Total Software Solution can be used by GIL to replicate at other municipalities.

Summary of Recommendations

1. Existing Application software: Use until the integrated application proposed is ready for implementation, but make no further investments with respect to HW, System SW and support, but existing minimum support to continue.

2. Application Development: The Application development should be finished at the earliest and the development and implementation undertaken in a phased manner as mentioned earlier.

3. Networking: Invest in comprehensive WAN at this juncture. This should ensure availability of telephones in the server room, it should preferably be dedicated. A suitable ISDN compatible router would ensure a fallback solution-though Floppy/magnetic media transfer would still be possible. Latter a more comparative online WAN can be considered.

4. Site preparation: The environment and LAN requirements have been spelt out in the main report which should be vetted and approved for implementation by the civil department in consultation with the EDP

cell/SISP. Based on the priority of locations and the schedule of HW installation this activity to be completed.

5. **Hardware and system SW:** As per final approval, procurement process to begin so that it is in sync with overall development and implementation plan.

6. **Training:** To be completed as soon as possible and identify the complete training needs and devise a training plan covering the long term needs.

7. **Recruitment:** On approval of the manpower structure, action to re-deploy and recruit staff in a phased manner should be taken. AMC may need to recruit about 40 graduates with computer certification or equivalent with about one or two years experience (This number will depend upon the number of CCCs to be implemented in each phase). They should be employed as trainees for a period of two years.

8. **Project Administration Plan:** The PAP should be suitably updated by the AMC for further implementation of the IT plan.

9. **Later on following systems can be implemented:**

Dynamic Information System

Transport Department Services

- Change of address of a vehicle owner
- Transfer of ownership of a vehicle.
- Issue of learners' Licenses.
- Issue /renewal of driving Licenses (non- transport vehicles).
- Registration of new vehicles.

Information

- Transport department procedures.
- Registration Department: market value assistance.

Reservation

- Reservation of GSRTC bus tickets.
- Tourism: Reservation of tickets / accommodation.

Misc. Other Services

- Sale of passport application forms.
- Receipt of passport applications.
- Receipt of applications for new telephone connections.
- Registration Department: sale of non-judicial stamps
- Registration Department: document writing service.
- Collection of small savings.

Internet Services

- Internet-enabled electronic payments.
- Downloading of forms and government orders (GOs).
- Filing of applications on the web.
- Receipt of complaints or request in connection with citizen services.

B2C Services

- ATM: Cash withdrawals and deposits.
- ATM: Issue of statements of account.

- Mutual Funds: Transfer of shares.
- Cell phone bill payment

Introduction

Ahmedabad Municipal Corporation **was Constituted under Bombay Provincial Corporation Act, 1949.
It le spread out on 190.84 Sq. kms. The general Administartive structure is as follows:**

Elected Wing

```
                          ┌─────────────────┐
                          │      Mayor      │
                          └─────────────────┘
                          ┌─────────────────┐
                          │    Dy. Mayor    │
                          └─────────────────┘
                    ┌──────────────────────────────┐
                    │    Municipal Corporation     │
                    └──────────────────────────────┘
```

Standing Committee	Transport Committee	Secretary	School Board

- Municipal Chief Auditor
- Water Supply & Sewage Committee
- Roads & Building Committee
- Town Planning Committee
- Health Committee
- Solid West Management Committee
- Hospital Committee
- Estate management Committee
- Recreational & Cultural committee
- Housing & improvement committee
- Octroi committee
- Tax Committee
- Legal Committee
- Secondary School Handling Committee
- Staff Selection and Appointment committee

Administrative Wing — Municipal Commissioner

Dy. Mun. Comm. (Admn.)	Dy. Mun. Comm. (General)	Dy. Mun. Comm. (South Zone-Health-Hospitals)	Dy. Mun. Comm. (Middle Zones - Finance.)	Dy. Mun. Comm. (Western Zones Estate.)	Dy. Mun. Comm. (North Zones - Tax)	Dy. Mun. Comm. (East Zones - Octroi)	Dy. Mun. Comm. (Engineering.)	Dy. Mun. Comm (Solid West Management.)	Asst. Mun. Comm
Administration Town Development, vigilance and I.R, M.I.S, Corporate Planning, Finance cell, Joint venture establishment, Big capital Projects Monitoring, Slum Networking Legal, UCD, Welfare, Typist pool, Primary School,	Fire-Brigade. Central Stores, Materials Management, Octroi Checking, encroachment Removal, Security, Traffic Engg., Public Complaints, Quality Audit, Communication	South Zone, Establishment. Co-ordinating of Health, ICDS, Family Welfare, Mun. Hospitals, Medical College, Municipal Swimming Pool, Museum, Parks-Gardens, International institutions for assessing funds & Technology Transfer, Balbhavan, Libraries	Middle Zones, Finance Zoo dept Balvatika	Western zones. Estate Dept., Election, afternoon lunch Plan, Central Record, Tender Office, Labor Act, Dept., Publicity Dept.,	North Zones, Tax, Computer	East Zone, Octroi, Mun Girls High School Secondary School Sanskrit Pathshala	Establishment & co-ordination of Engineering Dept., Big Projects of Water Drainage, Dudheshwer water works, Tube well station, Drainage Pumping Station, sewage Terminal plants, Lights and Power Plants, Road & Bridge & Fly over Bridge's construction Play Grounds.	Solid west Management. Central Workshop vehicle Tax, Octroi, (IB)	Vigilance, Finance Slotter House, CNCD, Planning, Finance cell,

Obligatory Services
(As per section 63 of Bombay Provincial Municipal Corporation Act)

Erection of boundary of city defining city limits
Watering, Scavenging and Cleansing of all public streets and places
Sewage services
Drainage services
Fire services
Health & Medical services
Street Lighting services
Maintenance of a monuments & open spaces
Identification of streets & houses
Regulation and abatement of offensive and dangerous trades or practices
Maintenance of burial houses and funeral homes
Construction or acquisition of public markets and slaughter houses
Construction or acquisition of cattle-pounds
Primary education services
Health and hygiene services
Construction, maintenance and alternation of bridges
Water supply services
Preventing and checking the spread of dangerous diseases
The securing or removal of dangerous buildings and places
Construction of conservancy staff quarters
Maintenance of relief works in scarcity, flood etc

Discretionary Services
(As per section 66 of Bombay Provincial Municipal Corporation Act)

Construction and maintenance of maternity homes & infant welfare houses

Maintenance of central laboratories

Swimming pool and other public health services

Tree plantation on road sides

Construction and maintenance of public parks and gardens

The holding of exhibition, athletics or games

The maintenance of an ambulance services

Construction and maintenance of theatres, community halls and museums etc.

Building or purchase of staff quarters

Construction and maintenance of public transport facilities

Construction and maintenance of educational institutes

Construction and maintenance of infirmaries and hospitals

The destruction of animals and birds causing a nuisance

Construction and maintenance of factory for the disposal of sewage

The building or purchase and maintenance of suitable dwellings for the poor and working classes

Provision of shelter to homeless persons and poor relief

Surveys of buildings or lands

Measures to meet any calamity affecting the public in the city any measure to promote public safety, health, convenience or instruction

The city is divided into 43 administrative wards and five zones.

Zone	Total no of amn. wards	Area sq. Kms.	Population	Population Density /sq. Kms
Central	9	16.50	5,77,388	34,993
East	9	27.51	7,83,107	28,466
West	9	42.32	6,73,420	15,913
North	9	32.19	7,79,028	24,201
South	7	72.32	7,02,418	9,713
Total	43	190.84	35,15,361	18,420

	1981-82	1995-96	1996-97	1997-98	1998-99	1999-00
No. of Election Wards	36	43	43	43	43	43
No. of Corporators	105	129	129	129	129	129
No. of Committees						
a) Statutory	3	3	3	3	3	3
b) Other	9	13	13	13	13	14

Population

Census Year	1981	1991	2001
Males	1,099,999	1,522,795	1,863,886
Females	959,826	1,353,735	1,651,475
Persons	2,059,725	2,876,710	3,515,361
Density(per sq. km)	20,985	15,074	18,420

MEDICAL & HEALTH

	1999
Live Birth	84537
Deaths	24783
Infant Deaths	2170
Maternal Deaths	12
Medical Services	
General Hospitals	3
Eye Hospital	1
New Chest Clinic	1
Infectious Diseases hosp.	1
Total	**5**
Municipal Dispensaries & Clinics	
Allopathic	16
Ayurvedic	2
Unani	2
Dental Clinics	3
Muni. Maternity homes	8
No. Of Beds in Hospitals	
General Hospital	1828
Eye Hospital	100
New Chest Clinic	32
Infectious Diseases Hosp.	110
Maternity Hospital	134
Referral Hospitals	115
Family Planning Operations	**11272**

PUBLIC EDUCATION

	1998-99
No. Of Primary Institutions (Run by Municipal Corporation)	
Primary Schools	567
Students	226153
Students Teacher Ratio	43
Secondary Schools	5
University Colleges	
Arts	11
Science	5
Commerce	17
Arts & Science	2
Arts & Commerce	13
Law	6
Engineering	2
Medical & Pharmacy	4
Dental	1
Education	8
B.B.A	3

FINANCE REVENUE INCOME (2001-2002)

Income Heads	Rs in Millions
Octroi (Net)	4050.000
Property Tax & Other Direct Taxes	1500.600
Income Under Special Act	5.340
Non-Tax Revenue Income	797.077
Revenue Grant, Subsidy and Contribution	1151.720
Recommended by State Finance Commission	1000.000
Other Income	145.681
Total income	8650.418
Opening Balance	1.877

Net Total	8652.295

Values shown on pie chart: 145.681, 1,000.000, 1,151.720, 797.077, 5.340, 1,500.000, 4,050.000
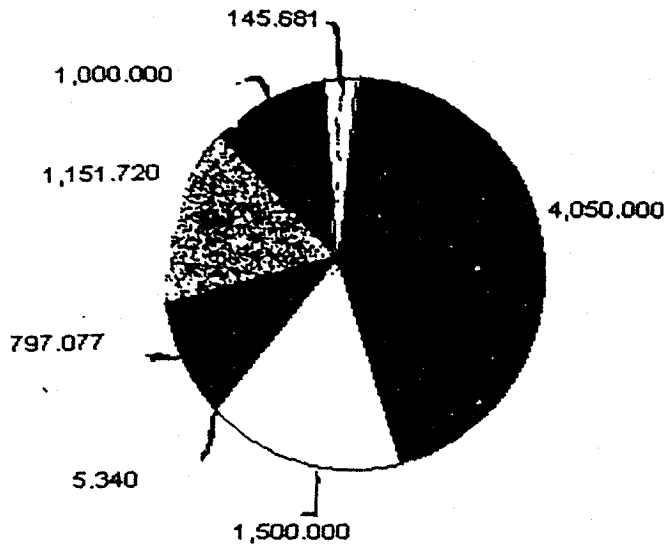
Revenue Income

- Octroi
- Property &Other Taxes
- Other
- Non Tax Revenue
- Grant Cont
- G.F.C
- Other Income

MUNICIPAL FINANCE – AN OVERVIEW

Rs. in Million	
	1999-00
Income	
Revenue	5661.18
Capital	1177.11
Expenditure	
Revenue	5182.99
Capital	1910.62
Revenue Income by Sub-head	
Octroi	3091.87
Property Tax	1166.53
Realization under special Act	2.31
Income from municipal properties and other then Rate and Tax	204.39
Grants & Contribution	990.03
Miscellaneous	206.04
Total	**5661.17**
Revenue Expenditure by Sub-heads	
Establishment	2333.58
Administrative & General Expenditure	89.90
Electricity-Energy	520:47

Maintenance & Repairs	190.60
Additional Expenditure (Service & Program Expenditure)	128.81
Grants	1155.43
Loan Charges	763.16
Other	1.04
Total	**5182.99**

Info on civic services to be online by August

Times News Network

AHMEDABAD: By August, the Ahmedabad Municipal Corporation plans to upload all its civic services on the Internet and the Intranet.

For commoners this will mean that payment of municipal taxes, lodging complaints relating to anything from water and sewage pipelines and following them up too and even getting building plans cleared would soon be possible at AMC's new website under preparation — www.egovamc.org.

The other fall-out of this move would be that AMC's Town Development Office (notorious for its corruption and dilly-dallying tactics) — which till date is responsible for clearing building plans in AMC area — would be rendered virtually powerless. Resultantly, the under-the-table transactions will also be done away with.

This prototype, which is being prepared at the behest of the state government, is funded by the Gujarat Informatics Limited. Once the e-governance of civic amenities is functional in Ahmedabad, the same can be replicated at other districts of Gujarat and even sold to neighbouring states.

Vatsal Patel, an official of TDO, said: "For clearance of building plans through electronic media we have prepared a checklist containing 82 criterion. If a licensed structural engineer and proprietor of that project submit a building plan that adheres to the building bylaws and to the checklist (which can be downloaded from the website) then an instant 'ok' is also possible. If the application requires clarifications, the same shall be mailed to the applicant."

Once the building plan (to be drawn electronically on Autocad) is submitted it's digital image will be matched with pre-determined parameters of building bylaws like floor space index, setback, margin and allocation of parking space. A green signal complete with the concerned authority's signature would come in reply, that is if every aspect is in order.

This process apart from reducing corruption in AMC's offices and increasing efficiency will also hold the structural engineers responsible for the declarations made in regards to the project.

In order to enable even a layman to file his tax returns or lodge complaints through this mode of e-governance city civic centres would be set up in all five municipal zones. The first centre of this kind will soon be set up at the Law Garden premises.

The municipal commissioner P Panneervel said: "A total of 14 civic applications including tax-payments, civic complaints and Citizen's Charter will be uploaded at our dynamic website which is now under preparation. Since my employees, who have to go through the rigours and know the nuances of working in a municipal corporation, are preparing this system I hope to see a system that would effectively address all pros and cons of civic services on Net."

Bldg plans can also be submitted online and will be passed immediately if requirements are met

Soon, solution to civic woes will be just a click away

EXPRESS NEWS SERVICE
AHMEDABAD, APRIL 9

NO water in your area? Do not worry. The solution will soon be just a click away once Ahmedabad Municipal Corporation (AMC) implements its e-governance plan. Any complaint regarding water, drainage or solid waste can then be made online. And AMC promises to act on it immediately.

The project will be completed four months from now and residents will be able to get many civic works done online. The jobs include submitting building plans, applying for water and drainage connections, getting birth and death certificates, lodging complaints regarding water, drainage and solid waste and the like.

A new website www.egovamc.org is being constructed after registration, says Municipal Commissioner P Panneervel. While various applications for water, drainage and waste

disposal can be made online. Most importantly, building plans can be submitted online and these will be passed immediately if requirements are met.

The project is being funded by the State Government. AMC has been working jointly with Gujarat Informatics Limited (GIL) to complete the project. Later, the State Government might implement this project in other parts of the State. A group of 50 software professionals have already completed part of the programming and the flow chart is also ready. Panneervel said the software is being prepared after consulting employees and officials of various civic departments involved in redressal of civic complaints. AMC employees themselves are preparing the software. This will make the software effective as grievances will be solved much faster, he said.

City Civic Centres — kiosks containing computer terminals that are connected to the main office — will be set up in all zones where people can submit applications or

Promised benefits

■ Building plans can be submitted to AMC online. These will be passed immediately if requirements are met

■ Property tax bills can be paid with the help of credit cards

■ Water and sewage connection applications can be filled online.

■ The website carries applications for birth and death certificates

■ Complaints regarding drinking water, drainage and solid waste can be made online to lodge complaints.

According to Panneervel, 14 services have been identified where people can use the Internet to get jobs done. These include submitting building plans, applying for water and drainage connections, getting birth and death certificates, lodging complaints regarding water, drainage and solid waste and the like. Regarding building plans, official of Town Development department, Vatsal Patel said that around 82 items have been iden-

tified after going through the building by-laws. Structural engineers and owners or developers can download these from the website and apply for building permission. If these are not met, the department will give the developer an identification number and queries will be posted to the number. Officials said that the building plans will have to be submitted in a software called AUTO-CAD. These plans will be digitalised by the computer to check if all conditions are met.

But what happens if irregularities take place after the plans are sanctioned? The Commissioner replies: "In such cases, there is just one option. Demolish the illegal portion." Besides bringing transparency and reducing corruption in the TD department, the new system is also likely to speed up the process of passing building plans.

The new website will be dynamic, says Panneervel. People will be able to download data from the website, but not upload data into it, he explains, adding that it will also have firewalls and anti-hacking packages as security.

Bottomline

મ્યુનિ. દ્વારા નવી ઈન્ટરનેટ વેબસાઈટ શરૂ કરાશે

બાંધકામના પ્લાનની અરજીની ઈન્ટરનેટ પર મંજૂરી મેળવી શકાશે

અમદાવાદ, મંગળવાર

અમદાવાદ શહેરમાં બાંધકામ માટેના પ્લાનની પ્રાથમિક મંજૂરી એટલે કે અરજીની મંજૂરીમાં પણ થતા ભારે વિલંબને ટાળવા મ્યુનિસિપલ કોર્પોરેશનમાં એક નવી ઈન્ટરનેટ વેબસાઈટ શરૂ કરીને બાંધકામ પ્લાનની અરજીની મંજૂરી ગણતરીના દિવસોમાં જ ઈન્ટરનેટ પર મંજૂર કરવાની એક યોજના આગામી ત્રણેક માસમાં જ અમલી બનનાર છે.

મ્યુનિસિપલ કમિશનર શ્રી પી. પનીરવેલે પત્રકારો સાથેની વાતચીતમાં આ માહિતી આપતાં એમ જણાવ્યું કે, રાજ્ય સરકારની નાણાકીય સહાયથી હાથ ધરવામાં આવેલી આ યોજનામાં હાલ તુરત પ્રથમ તબક્કામાં ટાઉન પ્લાનિંગ ખાતાને પસંદ કરી બાંધકામના પ્લાનની અરજીનો સ્વીકાર અને મંજૂરીનો કાર્યક્રમ હાથ ધરવામાં આવશે. એ પછી નાગરિક અધિકાર પત્રનો ઉમેરો કરવામાં આવશે અને ત્યાર બાદ મ્યુનિસિપલ કોર્પોરેશનની અન્ય ૧૪ સેવાઓ, પ્રોપર્ટી ટેક્સ, પાણી, ગટર, લાઈટ, જન્મ-મરણ પ્રમાણપત્ર, એસ્ટેટ અને અન્ય સેવાઓની અરજંઓ મંજૂરીઓનો કાર્યક્રમ હાથ ધરવામાં આવશે. આ માટે શહેરના જુદા જુદા વિસ્તારોમાં નાગરિકસેવા કેન્દ્રો ઊભા કરવામાં આવશે. જ્યાં ઈન્ટરનેડ પરની અરજી અને ફી વિગેરેનો સ્વીકાર કરવામાં આવશે. જો કે આ યોજના તો

સમગ્ર યોજનાની અંતિમ તબક્કાની યોજના હશે.

તેમણે કહ્યું કે, રાજ્ય સરકારની રૂા. એક કરોડની નાણાકીય સહાયથી હાથ ધરવામાં આવનારા આ પાયલોટ પ્રોજેક્ટના જુદા જુદા સોફ્ટવેર ગુજરાતની અન્ય રાજ્યોની મ્યુનિસિપલ કોર્પોરેશનને પૂરા પાડવાની વિચારણા ચાલી રહી છે. જો સરકાર આ વિચારણાને અમલી બનાવશે તો આ સોફ્ટવેરની રોયલ્ટી અમદાવાદ મ્યુનિસિપલ કોર્પોરેશનને નહી મળે, સરકારને મળશે, પરંતુ સોફ્ટવેર તૈયાર કરવાની પ્રતિષ્ઠા અને ગૌરવ અમદાવાદ મ્યુનિસિપલ કોર્પોરેશનને પ્રાપ્ત થશે. હાલ પ્રથમ તબક્કામાં બાંધકામ પ્લાન મંજૂરીની અરજીઓ સ્વીકારવાના સોફ્ટવેર ઈન્ટરનેટ માટે તૈયાર કરવામાં આવી રહ્યા છે એ કામ મ્યુનિસિપલ ટાઉન પ્લાનિંગ ખાતાનો સમગ્ર સ્ટાફ જે ખંત અને ઉત્સાહથી કરી રહ્યો છે તે કાબિલે દાદ છે.

અરજીનો સ્વીકાર

પ્રથમ તબક્કાના આ સોફ્ટવેર કહો કે કાર્યક્રમની વિગતો આપતા આ પ્રોજેક્ટના ઈન્ચાર્જ એવા ડેપ્યુટી ટાઉન પ્લાનિંગ ઓફિસર શ્રી વત્સલભાઈ પટેલે પત્રકારોને એમ જણાવ્યું કે, બાંધકામના પ્લાનની અરજી માટેનો ચોક્કસ નમૂનો ઈન્ટરનેટ પર હશે. જેમાં પ્લાન અરજી ગાટેના નિયત કરાયેલા માપદંડોની યાદી હશે. એ યાદી મુજબ અરજદારની અરજી, આર્કિટેક

એન્જિનિયરનો પત્ર વિગેરે બરાબર છે કે, કેમ? એની ખરાઈ ઈન્ટરનેટ પર કરીને જો ભૂલો હોય કે વિગતો અધૂરી હોય તો એ અધૂરી વિગતો મોકલી આપવા વેબસાઈટ દ્વારા જ જણાવાશે. જો અરજ માપદંડ મુજબની માંગણીની પૂર્ણતા કરતી હોય તો એવી અરજ એ જ દિવસે મંજૂર કરી દેવામાં આવશે. આ પ્રોજેક્ટથી અરજદારોને મ્યુનિસિપલ કોર્પોરેશનમાં ધક્કા ખાવા નહી પડે. ટી. ડી. ઓ. સ્ટાફને બાંધકામના સ્થળ તપાસ માટે જવું નહી પડે. પરિણામે વિલંબનો કોઈ પ્રશ્ન રહેશે નહી. શ્રી પટેલે ઉમેર્યુ કે, હાલતુરત બાંધકામ પ્લાન માટે રજૂ કરવામાં આવતી અરજીની મંજૂરી અપાશે. આ મંજૂરી બાંધકામની મંજૂરી એટલે કે બિલ્ડિંગ બંધાયા પછીના વપરાશ એટલે કે બી.યુ. પરમીશનની નથી. આ પ્રક્રિયા તો બીજા તબક્કાની છે, કેમ કે એ બી.યુ. પરમીશન આપતા પહેલાં સ્થળ પરનું બાંધકામ, રજૂ કરેલા નકશા મુજબ થાય છે કે કેમ? એફ. એસ. આઈ. બરાબર છે કે નહી? ગેરકાયદે બાંધકામ છે કે કેમ? છે તો કેટલું છે? વિગેરેની તપાસ એ સ્થળ પરની તપાસ હોવાથી એ કામગીરી તો હાલ ચાલે છે એ પદ્ધતિથી જ કરાશે. માત્ર બાંધકામ પ્લાન મૂકવામાં આવે એ બાંધકામના નકશા સાથેની અરજીનો જલદી નિકાલ થાય અને બાંધકામમાં વિલંબ ન થાય એ જોવાનો પ્રથમ તબક્કાનો પ્રયાસ કરવામાં આવ્યો છે.

બીજા તબક્કામાં મ્યુનિ. ની ૧૪ જેટલી નાગરિક સેવાઓ પણ શરૂ કરાશે - નાગરિક સેવાકેન્દ્ર શરૂ કરાશેઃ જ્યાં અરજીના સ્વીકાર-નાણાંનો સ્વીકાર અને મંજૂરી પણ ઈન્ટરનેટ પર અપાશે

નિયત માપદંડ મુજબના પ્લાન એ જ ઘડીએ મંજુર થઈ જશે

અમદાવાદ, મંગળવાર

રાજ્ય સરકારના સહયોગમાં અમદાવાદ મ્યુનિ. કોર્પોરેશનને ઈ-ગવર્નન્સ દ્વારા મકાનના પ્લાન પાસ કરવા અને અન્ય નાગરિક સુવિધાઓ પુરી પાડવા માટે પાયલોટ પ્રોજેક્ટ તૈયાર કરવાની કામગીરી હાથ ધરી છે. આ માટે મ્યુનિ. અધિકારીઓએ નવી વેબસાઈટ અને સોફ્ટવેર તૈયાર કરવાની કામગીરી હાથ ધરી છે ને આગામી ત્રણેક મહિનામાં નવી પધ્ધતિનો અમલ થઈ જાય તે માટેનું લક્ષ્યાંક નક્કી કરવામાં આવ્યું છે. આ પધ્ધતિ અમલમાં આવતા મકાનના પ્લાન નિયમ મુજબના જ હશે તો તે એક જ ઘડીએ મંજૂર થઈ જશે.

મકાનના પ્લાન ઈ-ગવર્નન્સ દ્વારા પાસ કરવા મ્યુનિ.ની યોજના : ૧૪ નાગરિક સુવિધાઓને પણ આવરી લેવાશે

આ અંગે વિગતો આપતા કમિશનરશ્રી પી. પનીરવેલે જણાવ્યું હતું કે, આ પધ્ધતિમાં સ્ટ્રક્ચરલ એન્જિનિયર પ્લાન રજૂ કરે કે તુરત જ તે મંજૂર થાય છે કે નહિ તેનો પ્રત્યુત્તર મળી જશે. કોઈ ખામી હશે તો તે પણ જાણી શકાશે એટલુ જ નહી સ્ટ્રક્ચરલ ફીના નાણાં બિલ કે એન્જિનિયર ક્રેડિટ કાર્ડ દ્વારા ભરી શકશે. આ સોફ્ટવેરમાં જન્મ-મરણ પ્રમાણપત્ર, પાણી ગટરના જોડાણો, ટેક્સ, ઓક્ટ્રોય, કચરાની ફરિયાદો, સ્ટ્રીટલાઈટ વગેરે જેવી ૧૪ મહત્ત્વની સેવાઓને પણ આવરી લેવામાં આવશે, જેની ફી પણ દૂર ખૂણામાં બેઠા બેઠે ક્રેડિટ કાર્ડ દ્વારા ભરી શકાય તેવી સુવિધા રાખવામાં આવનાર છે.

તેમણે જણાવ્યું હતું કે, ઈન્ટરનેટ પર પ્લાન રજૂ કરવા માટેની તમામ ઓનલ કચેરીઓ ઉપરાંત જુદા જુદા વિસ્તારોમાં ૧૫ જેટલા સીવીક સેન્ટરો ઊભા કરવામાં આવનાર છે.

મ્યુનિ. દ્વારા સોફ્ટવેર વિકસાવવાની કામગીરી સંભાળતા ટી.ડી.ઓ. વિભાગના શ્રી વત્સલ પટેલે જણાવ્યું હતું કે, આ સોફ્ટવેરમાં અગાઉથી પ્લાનના નિયમોનું અર્થઘટન, આંકડાકીય વિગતો, અન્ય

નિયત માપદંડ

(છેલ્લા પાનાનું ચાલુ)

માપદંડો તૈયાર રાખવામાં આવશે અને ઈન્ટરનેટ પર મુકાયેલ પ્લાનનું તેની સાથે મેગીંગ કરવામાં આવશે. આ બંને બાબતો મળતી હશે તો પ્લાનને એ જ ક્ષણે મંજૂરી મળી જશે.

પ્લાન પાસ કરતા પૂર્વે સ્થળ પરની સ્થિતિના પરિક્ષણની જવાબદારી હાલ ટી.ડી.ઓ. ખાતું સંભાળે છે તે જવાબદારી આ પધ્ધતિમાં સ્ટ્રક્ચરલ એન્જિનિયરની રહેશે અને એ જો કોઈ ખોટી વિગતો રજૂ કરશો તો તેનું લાયસન્સ રદ કરવામાં આવશે. જ્યારે કે પ્લાન પાસ થઈ ગયા પછી પ્લાન પ્રમાણે જ બાંધકામ ચાલી રહ્યું છે કે નહીં તે અંગેની ચકાસણી વર્તમાન પધ્ધતિ પ્રમાણે ટી.ડી.ઓ વિભાગ દ્વારા જ કરવામાં આવનાર છે.

આ નવી પધ્ધતિથી ટી.ડી.ઓ. ખાતામાં લાંબા સમય સુધી પ્લાન અટવાયેલા પડ્યા રહે છે તે સ્થિતિનો અંત આવશે તેમ જણાય છે. ઉપરાંત ભ્રષ્ટાચાર અને ગેરકાયદે બાંધકામની પ્રવૃત્તિ પર અંકુશ આવશે તેમ પણ મનાઈ રહ્યું છે. ઉપરાંત આ પ્રોજેક્ટને અમદાવદમાં સફળતા મળે તો તે પછી રાજકોટ, સુરત, વડોદરા, ભાવનગર, જામનગર વગેરે અન્ય શહેરોમાં પણ લાગુ પાડવા માટેનો રસ્તો ખુલ્લો થશે તેમ તેમ ઉચ્ચ અધિકારીઓનું માનવું છે.