Use of Technology at RMC

Vijay Nehra , IAS
Municipal Commissioner

City at a Glance

Local Self Government	
Heart of Saurashtra region	
Location	**: 22.17N & 70.48E**
Area	**: 129.3 Sq. Kms**
Population	**:1.3 million**
Climate	**: Max.43.5O C (Avg.)**
Climate	**: Min. 24.2O C**
Rain fall	**: Avg. 500 mm**
Last year	**: 1450 mm**
Zonal Offices	**: 03**
City wards	**: 23**
City Civic Center	**: 06**

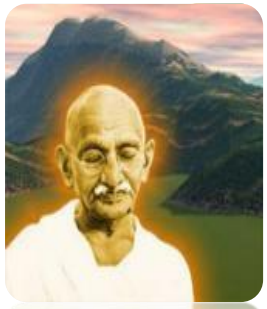
About Rajkot

Rajkot is one of the fastest developing cities located at the center of Saurashtra region of Gujarat State situated on western part of India. The city has geographical area of 129.3 sq.kms and has a population of 1.3 million plus (Census, 2011)

About RMC

Rajkot Municipal Corporation (RMC) is a local government committed to provide basic infrastructure facilities including entertainment facilities to the people of the city. RMC is very well known for managing the city by using private sector participation as well as introduction of innovative mechanisms in management to serve people efficiently. City has prepared different plans for improving services and to reduce the gap between services and demands.

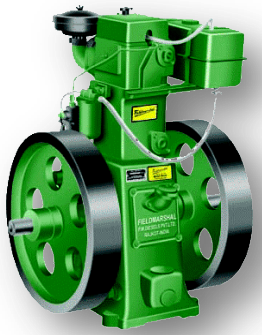
Rajkot is Best known for



Father of the Nation

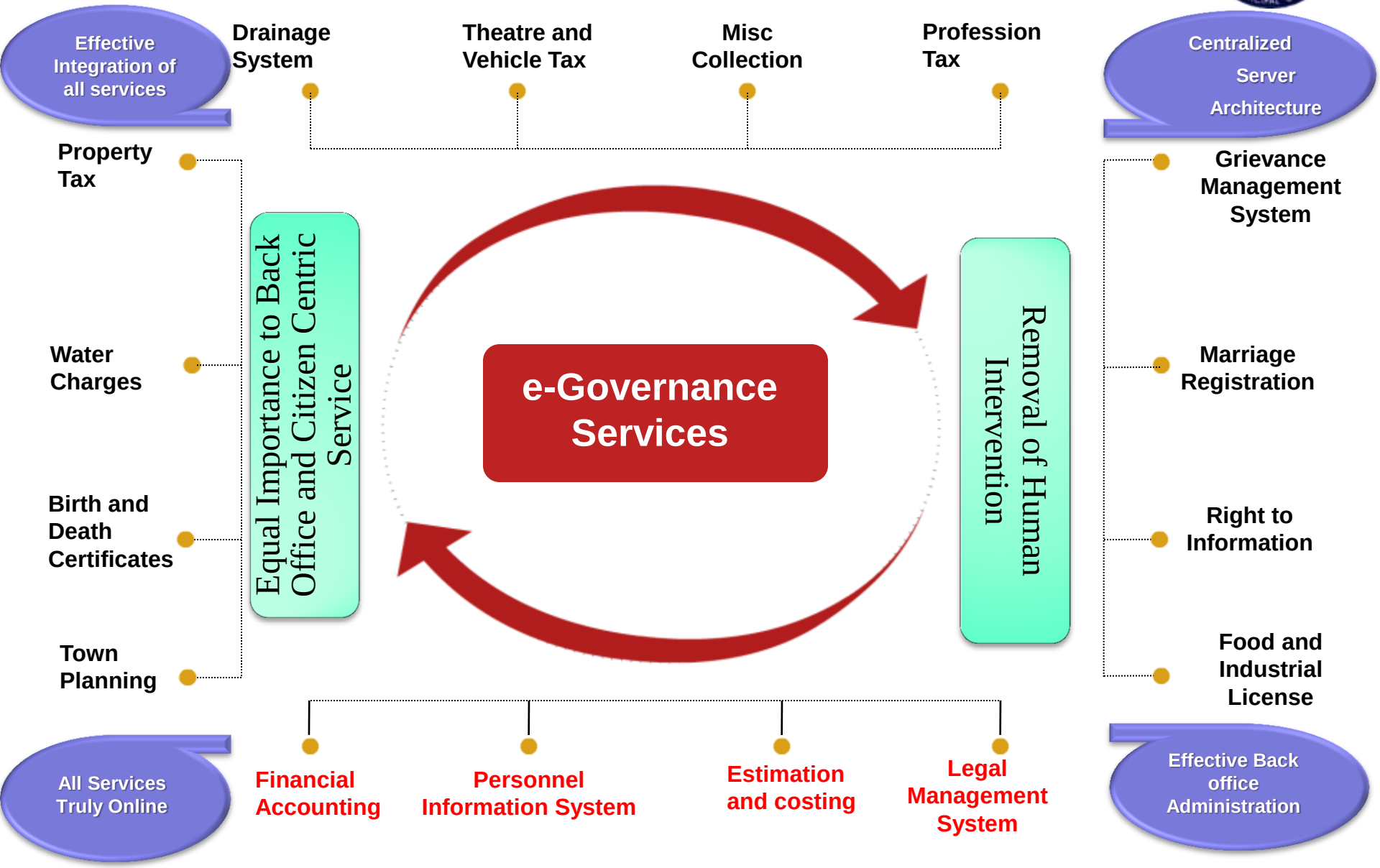
Casting and Forging

Gold and Silver Jewellary



Diesel Engine

Brief Details: e-Governance



Different Initiatives

Multi Utility Services

- 24x7 Call Center
- Online Payment of Dues through Credit Card/Debit Card/Net Banking and Mobile App
- Transaction Kiosk for Dues Collection
- On the spot building plan permission
- Online Registration of Birth from Hospital
  Birth 1950 and Death Registration Data 1972 onwards

Website

- Birth and Death Certificates (1999 onwards)
- Property Tax Demand Bill/Receipt (2005 onwards)
- RTI Status
- Profession Tax Bill/Receipt
- Namavali (Names of new born baby)
- Tracking of Account Bills
- Citizen Forum on Web (Both in Gujarati and English)
- Complain Tracking and Registration

Tie up with Post Office for better service

- Property Tax Collection
- Water Charges Collection
- Awas Yojna EMI Collection
- Profession Tax Collection

Mobile App

Property Tax

Citizen Forum

Water Charges

Licenses

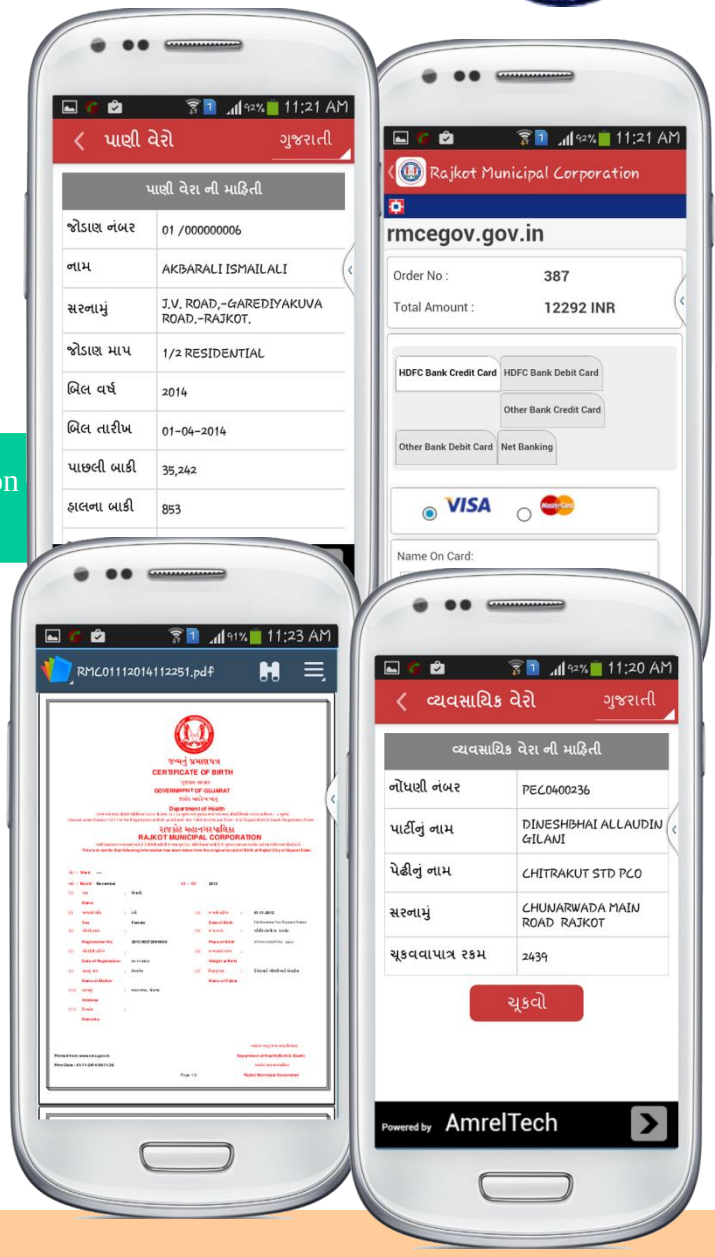
Profession Tax

Grievance Management

Birth Certificate

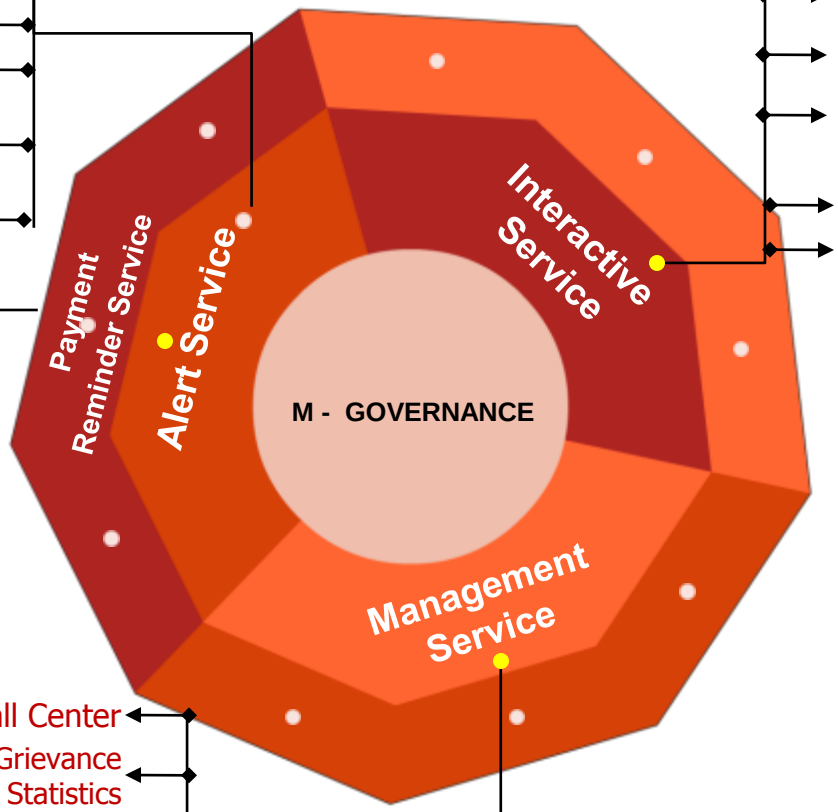
Marriage Certificate

Death Certificate



m-Governance Present Status

Project Started in 2009



- Vaccination
- Property Tax Transaction
- Professional Tax Transaction
- Birth & Death Registration
- Bill Payment to Venders/Contractors
- Awas Yojna Installment Transaction
- Cheque Return Alert
- Property Tax Outstanding Dues
- Profession Tax Outstanding Dues
- Water Charges Outstanding Dues
- Property Tax Outstanding Dues
- Water Charges Outstanding Dues
- Property Name Change
- Property Tax Assessment Request
- Details of SMS Services
- Registration of Mobile No for Property Tax
- Food Complaints
- Street Light Complaints
- 24 x 7 Call Center
- Daily Income Expenditure, Daily Grievance Statistics
- Cheque Return Details to higher officers,Presence details to department heads
- NOD Service
- Employee Presence

Vaccination

- Introduced in Nirogi Bal Varsha (Healthy Child Year)
- Vaccination alert to all registered Birth
- Based on National Immunization scheme
- From the age of 7 days to 16 years
- Every Day we send more than 800 vaccination alerts

Within 7 days of Birth	BCG
Within 14 days of birth	OPV-0
At age of 1.5	DPT-1 & OPV-1
At age of 2.5 Month	DPT-2 & OPV-2
At age of 3.5 Month	DPT-2 & OPV-3
At age of 9 months	Measles & Vitamin-A (Dose 1)
At age of 18 Months	DPT Booster & OPV Booster
At age of 5 Years	DT-5
At age of 10 Years	TT-10
At age of 16 Years	TT-16
At 9 Months to 5 Year (Each 6 Months)	Vitamin-A (Dose 2 to 9)

Birth-Death Registration

Our Approach

- Direct Online Registration of Birth through Hospitals
- Service Started from 02/10/2013
- 74 Hospitals are entering data directly from their hospital, which covers 49% of total data
- Digitally signed certificates before hospital discharge
- Due to that 9 days and 10 Days PAN Card National Record holder are From Rajkot
- Digitally signed Certificates from Website
- Certificate from Kiosk (Under Development)
- Certificate Validation through QR Code

Smart Payroll System Based on Face Detector

Our Approach

- 4813 Employees including sweepers are covered
- All ward offices with 2 devices, one as backup
- All other offices like zonal offices, city civic centers, pumping stations, land fill site etc are covered
- Each device can register 500 faces
- Connectivity through GPRS
- Auto Downloader downloads all presences continuously
- Presence Integration with Payroll
- Leave management is also integrated with payroll
- 15 minutes delay is allowed

THE TIMES OF INDIA, AHMEDABAD
THURSDAY, MAY 14, 2015

TIME

RMC's 'smart system' makes staff punctual

Employees Have To Mark Attendance Using Face Detectors

Vijaysinh.Parmar@timesgroup.com

Rajkot: For the last 10 days people could be seen standing in queues at various offices of the Rajkot Municipal Corporation (RMC). These are not citizens queuing up to avail benefits of a government scheme, but employees of RMC standing to mark their attendance under the 'Smart Pay Roll System' which used face detectors to register attendance of all employees.

After the success of the pilot project where seven face detectors were installed at RMC's offices, the civic body has now scaled up the 'Smart Pay Roll System' and now covers all its 170 offices including civic centres and zonal offices across the city. In total, 170 face detectors have been installed where employees stands before the device and his or her attendance automatically gets registered in a central server.

"The reporting time for employees at various offices is 10:30am and leaving time is 6:10pm. But we had noticed that most of them were coming late and going home early. Now, with this system the time of arrival and leaving office is registered automatically," said a senior RMC official.

"Because of this system, employees have started arriving on time and in some cases, earlier. Because, if any employee is late by more than 15 minutes, system registers half days leave on his or her record," said a he added.

Since the entire system is linked to the central server employees have to apply for leave online. "Earlier, we had noticed that some employees went on leave but did inform the concerned department about their leave period. But now, with this system, employees have to apply for leave when they do not come to work or else they would be marked as absent," said a source.

RMC has installed face detectors at its 42 ward offices, three civic centres, three zonal offices, 36 water and drainage pumping stations and libraries and other offices.

The field staff have been asked to go to the nearest civic body office and get their attendance registered using the face detection device.

TOI

The new attendance system covers 170 offices of the civic body in the city

Online Payment

Our Approach

- Part of Digital India Initiatives
- Stopped collection at City Civic Centers for more than 1 month and ran awareness drive to divert citizen to pay through online mode
- Tie up with Cyber cafe for online collection of dues
- Rs.50/- discount to motivate citizens to pay through online mode
- Citizens need not to visit RMC office
- Citizens can pay municipal dues from Website (started in 2011)
- Mobile payment through mobile app started from October 2014
- Citizens have to pay actual amount only, credit/debit/net banking charges are borne by RMC

TIMES CITY

RMC plays smart, offers discount to online tax payers

28% Have Already Paid Their Taxes Online This Financial Year

Vijaysinh.Parmar
@timesgroup.com

Rajkot: The Rajkot Municipal Corporation (RMC) is offering discounts to tax payers to pay their taxes online and the initiative is getting an overwhelming response.

"We started online tax payment services in 2011. The number of online tax payers has been increasing gradually. This financial year we have made it a mission to encourage people to pay their tax dues online. We are received an overwhelming response. Out of 50,000 people who have paid their property taxes till now, more than 14,000 did it online this financial year. This number is around 28%," an RMC official said. There are over 3.68 lakh property tax payers and 76,000 professional tax payers in the city.

"We are offering Rs 50 discount to tax payers whose property tax is Rs 1,000 and above for online transaction. The government departments charge Rs 10 per transaction during online payment and if a customer uses credit card, he is charged 2% extra on the total amount payable. We think this discourages people to go for netbanking," another RMC official said.

"We calculated the amount that we spend on human resources and overhead expenditure at civic centres where tax dues are collected. On an average, a civic body spends Rs 160 per transaction when a citizen goes to pay his tax in person. So, we decided to pass on this amount to the tax payer as discount," he said.

At present, citizens can pay their taxes at the six civic centre offices and at 23 post offices. RMC has also a tie-up with ICICI Bank from this year. People can pay their taxes dues at the 13 branches of the bank in the city.

While RMC pays Rs 14.40 per transaction to post offices which accepts the civic dues, ICICI bank does not charge anything for civic tax transactions. RMC is planning to tie up with more banks.

"While encouraging people to go digital, we aim to decongest the civic centre offices where people have to stand in long queues for hours together. Online payment will be convenient to many people and it will also help make Rajkot a smart city," Vijay Nehra, municipal commissioner of Rajkot, told TOI.

RMC has asked 10 cyber cafe owners to help the citizens to pay their tax online free of cost. "We have issued a list of 10 cyber cafés where people can go and avail the net facility to pay their tax online. We urge people to not share their ID and password with anyone while availing this facility," the RMC official said.

One of many ads put up by RMC at various place in the city encouraging people to pay tax online

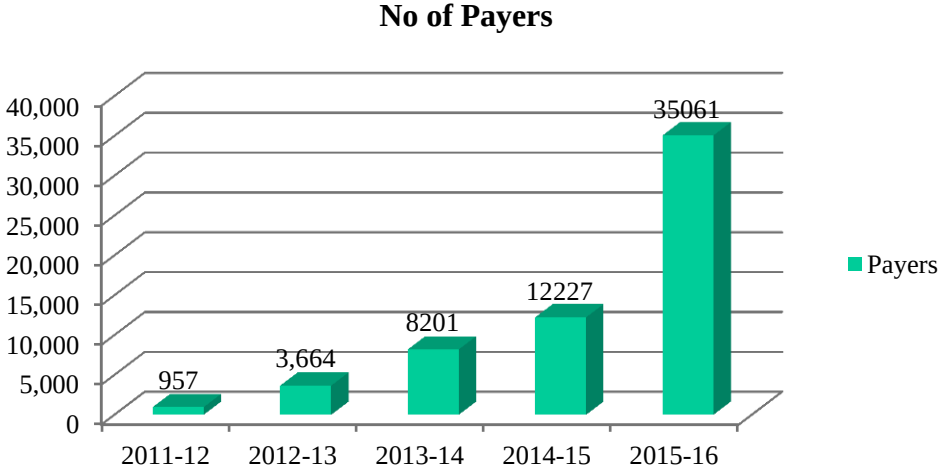
Online birth registration touches 50%

Rajkot: Now, parents of newborn babies don't have to stand in long queues to get the names of their babies registered with Rajkot Municipal Corporation. The municipal corporation had started online birth registration in the city from October 2013. From January 1 to 27 April, a total of 9,099 babies were born in the city and of them birth registration of 4,186 babies was done online from the hospitals itself. A total of 57 hospitals in the city are linked with RMC server for newborn baby's birth registration. After a baby's birth registration has been done from the hospital, parents can go to the municipal office and get the certificate.

GETTING TECH-SAVVY

Year	Tax payers
2011-12	957
2012-13	3,664
2013-14	8,201
2014-15	12,227
2015-16	14,000

*Till 27 April



Google Analytics of RMC web site

Google Analytics

Rajkot Municipal Corporation - http://w...
Rajkot Municipal Corporation

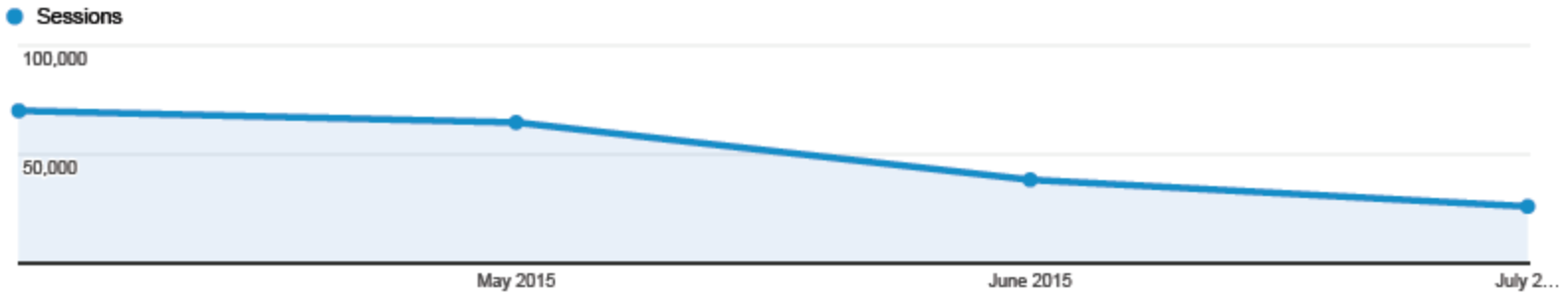
Go to this report

Audience Overview

Apr 1, 2015 - Jul 31, 2015

All Sessions
100.00%

Overview



Sessions	Users	Pageviews
198,306	106,460	755,251

Pages / Session	Avg. Session Duration	Bounce Rate
3.81	00:04:42	36.21%

% New Sessions
49.50%

Best Practice - Payment Reminder Service

Reminder SMS to all registered tax payers

Property Tax	Water Charges	Profession Tax

Registering of mobile no at the time of payment of dues/new entry

Identifying the tax payers from where easy recovery is possible

Encourage them to take advantage of 10% discount

This year during 10% discount scheme Rs.1108 Lacs additional collected within two month as compared to last year

Today we are ahead by Rs.907 Lacs with 4372 more payers

Higher collections due to payment reminder SMS

In Profession Tax received more than 24.12 Lacs additional

Best Practice – QR Code

Quick Response Code

Two dimensional specially designed code

Can be scanned in any smart mobile having scan software

Identified services

- Birth Certificate
- Death Certificate
- Marriage Certificate

More services

- Property Tax Receipt
- Property Tax Demand notice and bill
- All payment receipts

Service	2012	2013	2014	2015
Property Tax	352	2883	3877	1745
Birth Cert	201	2175	2687	966
Death Cert	61	448	653	199
Marriage Cert	40	1086	1891	447
Total	**654**	**6592**	**9108**	**3357**

Best Practices - 24 x 7 Call Center

Our Approach

- Complaints registered through
  - Phone, SMS, Website, Mobile App
- Street Light Pole Complaint registration through SMS
- Officers can update complaint only through SMS
- As soon as status of complaint changed complainant is informed by SMS
- 75 municipal services are covered under Call Center
- Citizen can know status of complaint by SMS
- Officers can know no of pending complaint by sending PND to Call Center

Benefits to Rajkot Municipal Corporation

- All complaints are registered electronically
- Totally out-sourced
- Reduced expenditure on running different control rooms
- Easy to trace complaint
- Direct communication reduces the response time
- The Officers responsible for the specific work
- All information on local intranet and is just single click away

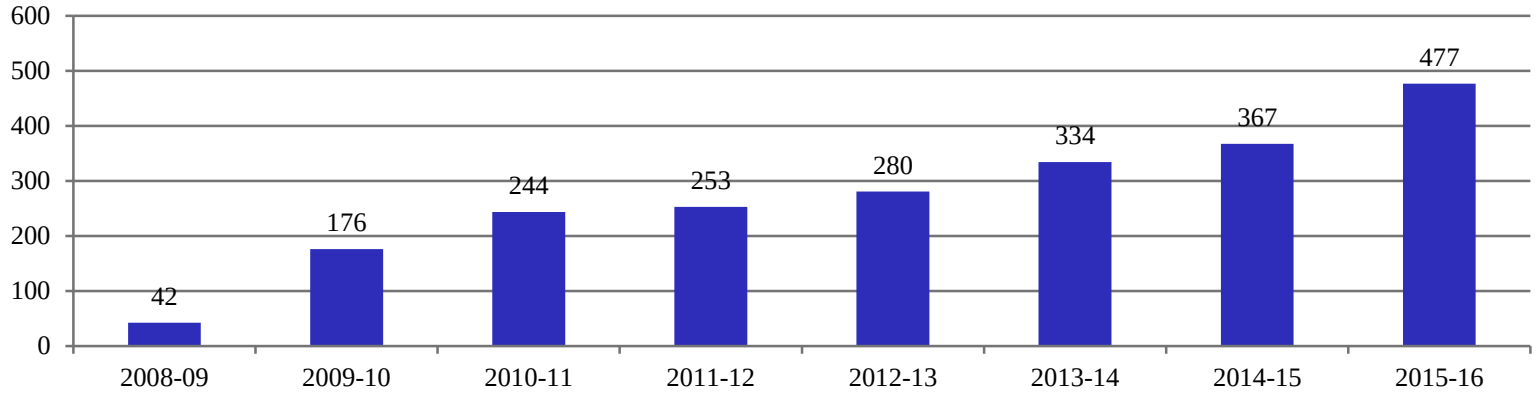
Benefits to Citizens

- Single point Communication
- Citizen can know status of complaint by SMS
- As soon as complaint status changes system will automatically inform complainant by SMS
- Hassle free complaint registration
- 24 x 7 service

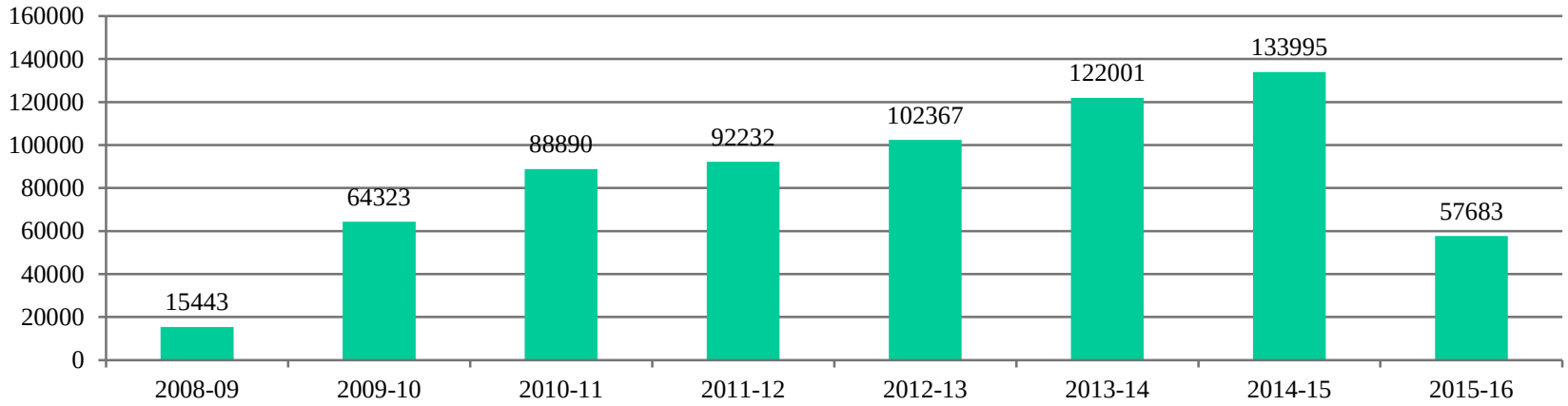
Features

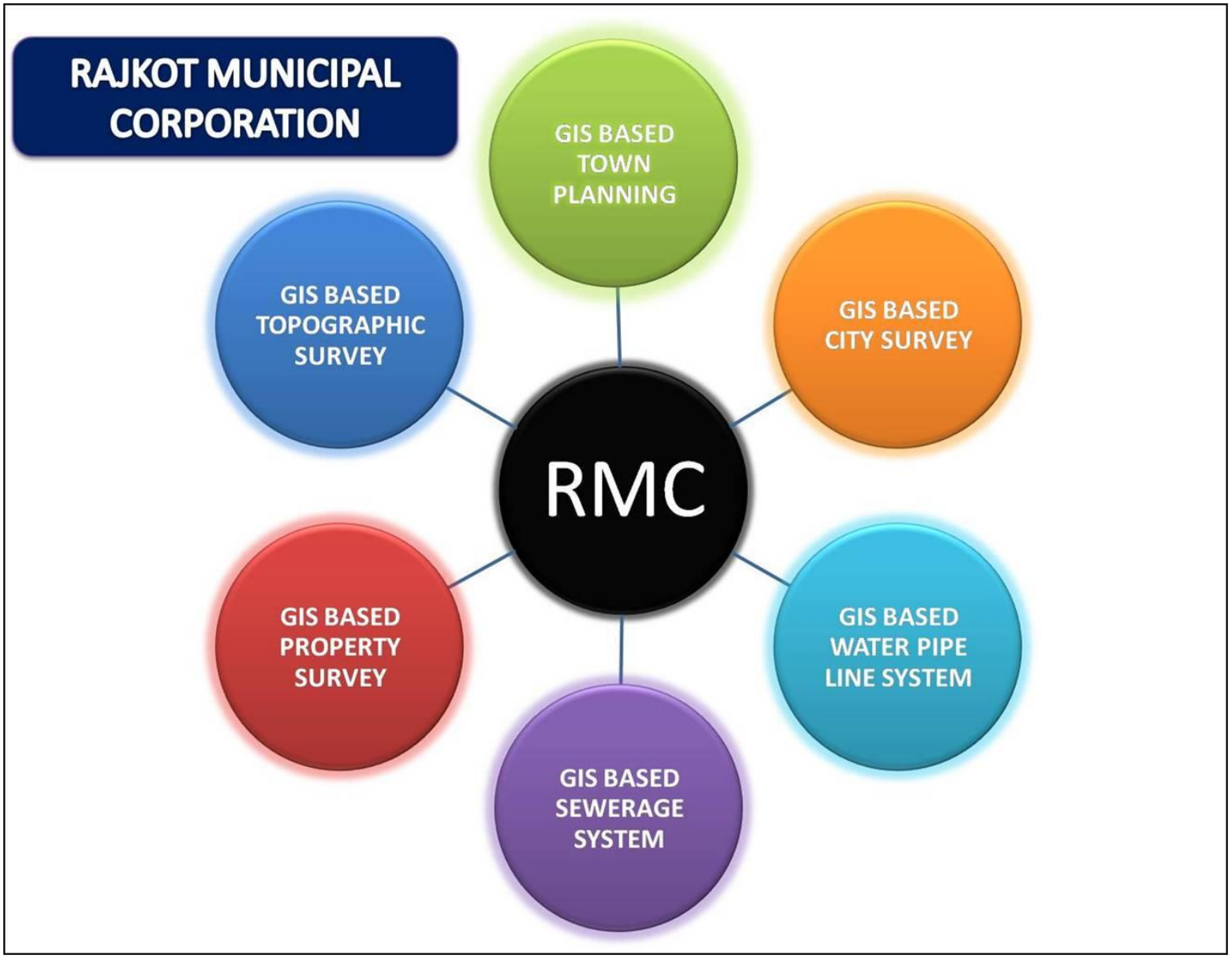
- Running 24x7
- 4 Lines with Hunting Facility
- Auto Escalation of Complaints
- Fully Interactive Service
- To register Street Light Complaint
  - Light<space>Pole No (send it to 9624096241)
- To know Status
  - Status<space>complaint no (send it to 9624096241)
  - Website
  - Mobile App

Complaints per Day

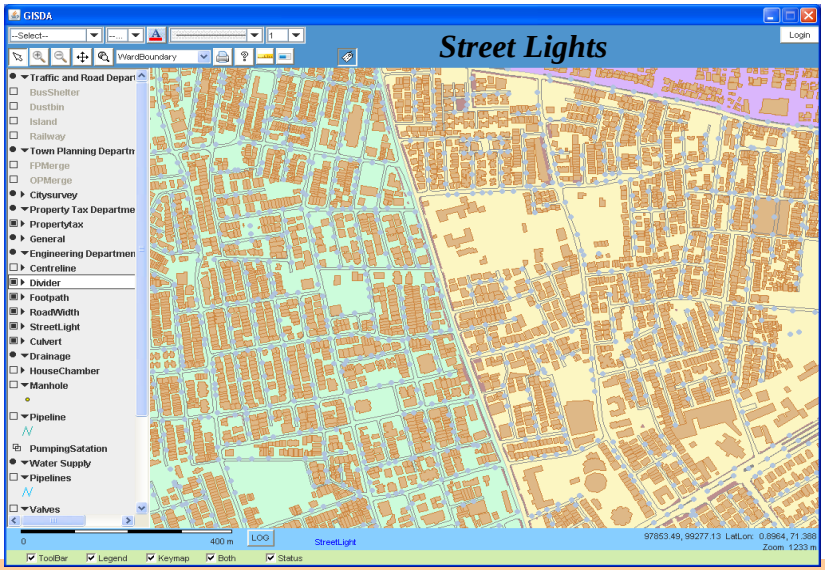


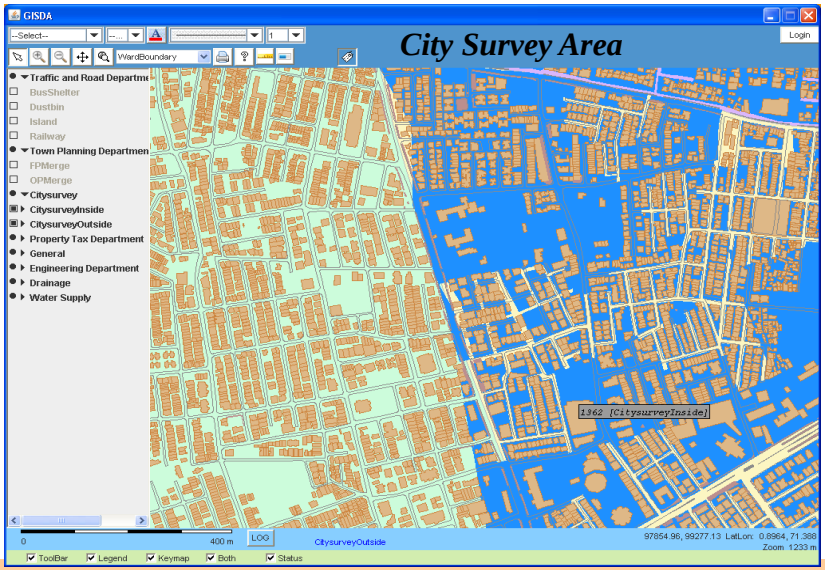
Year Wise Complaints




RAJKOT MUNICIPAL CORPORATION
GIS BASED TOWN PLANNING
GIS BASED TOPOGRAPHIC SURVEY
GIS BASED CITY SURVEY
RMC
GIS BASED PROPERTY SURVEY
GIS BASED WATER PIPE LINE SYSTEM
GIS BASED SEWERAGE SYSTEM

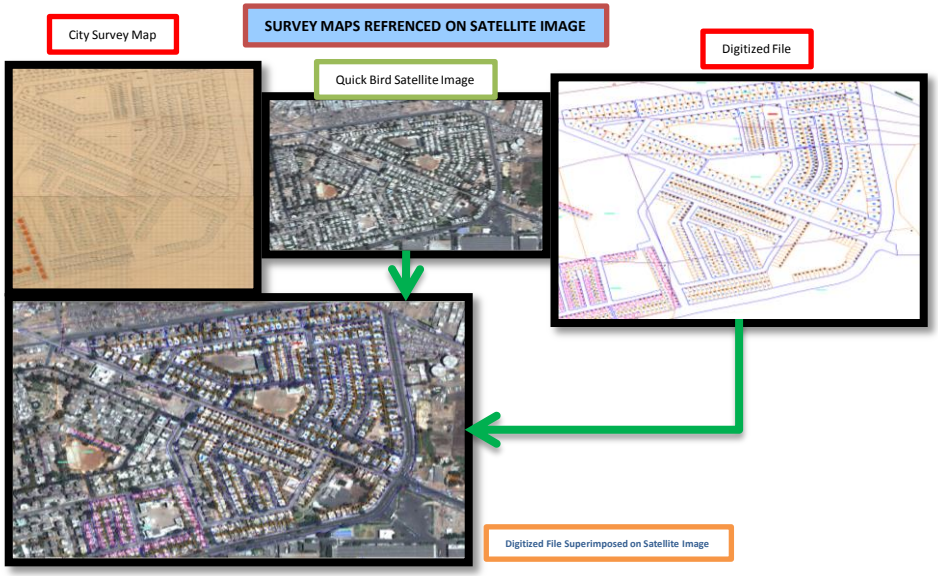
1. The whole city of Rajkot is surveyed with principle of "***Total Station Survey***"
2. Preparation of ***Base Map using satellite images.***
3. Creation of Layers of ***Geo-Spatial Information*** such as Water supply, sewerage network, street lights, road network and other infrastructure.
4. Analysis of geo-Spatial data and provision of basic Infrastructure services
5. GIS based Integrated ***city wide housing mapping and slum identification***.

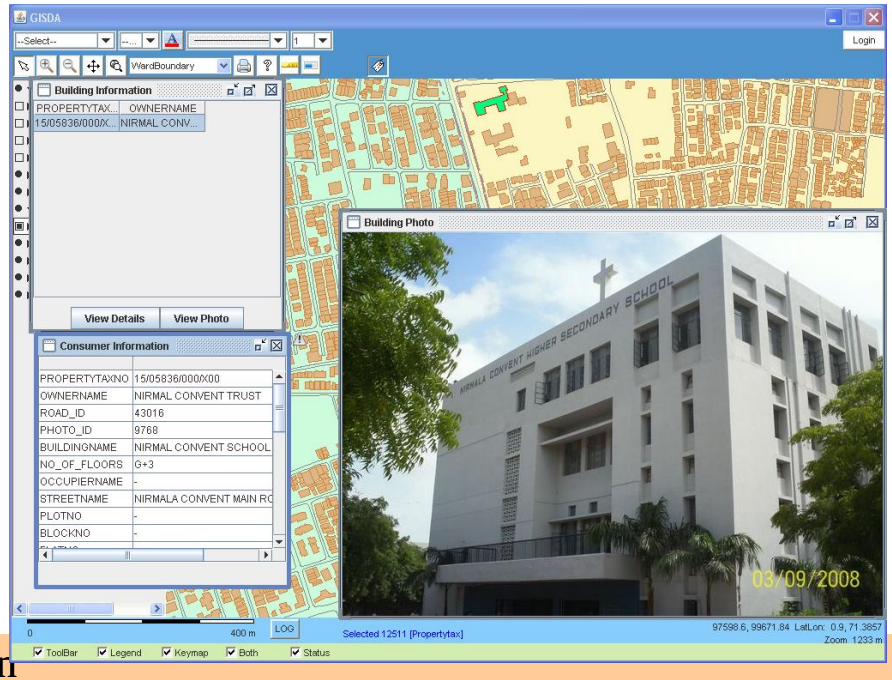




GIS Application for Slum free city

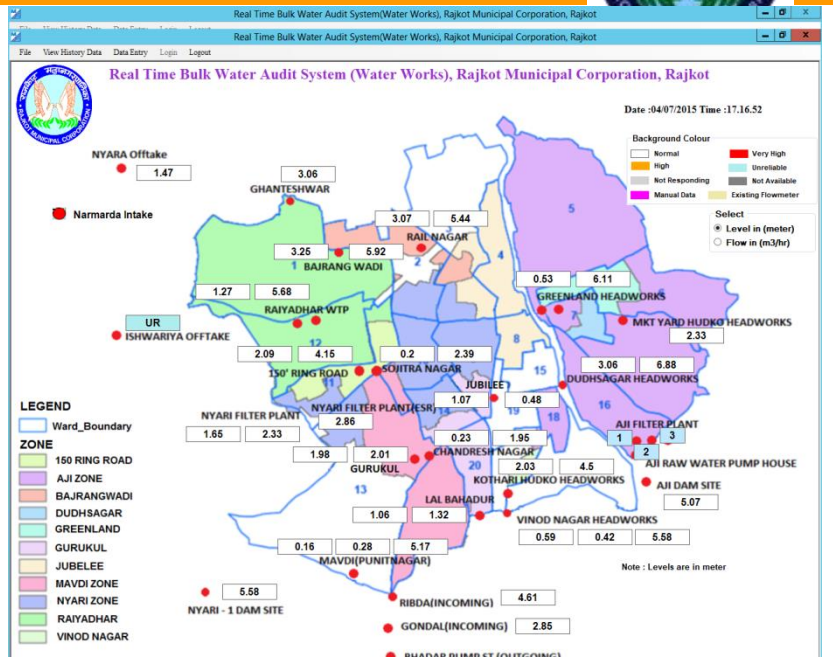
1. Prepared City wide Slum map covering all housing typology and available infrastructure.
2. GIS based Priority matrix for slum redevelopment.
3. Tenability analysis, vulnerability assessment, redevelopment plans
4. Health and education services for Urban poor is given special attention for mapping.

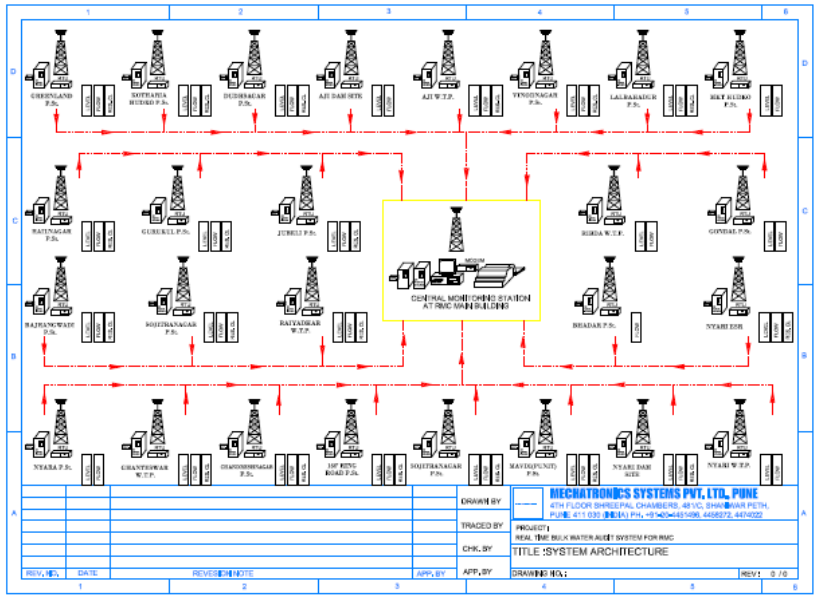




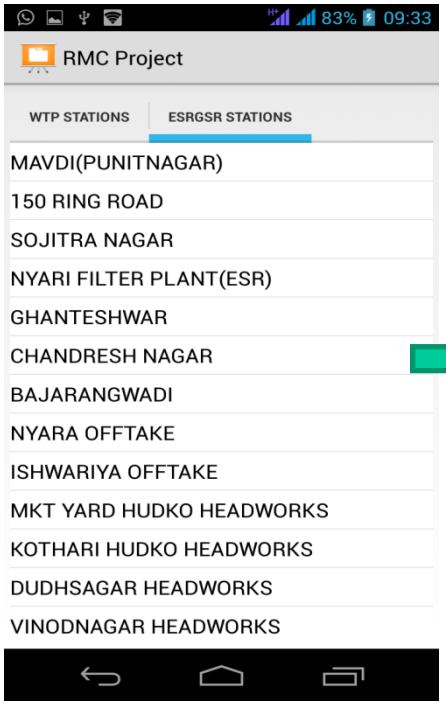
Real Time Bulk Water Audit Project

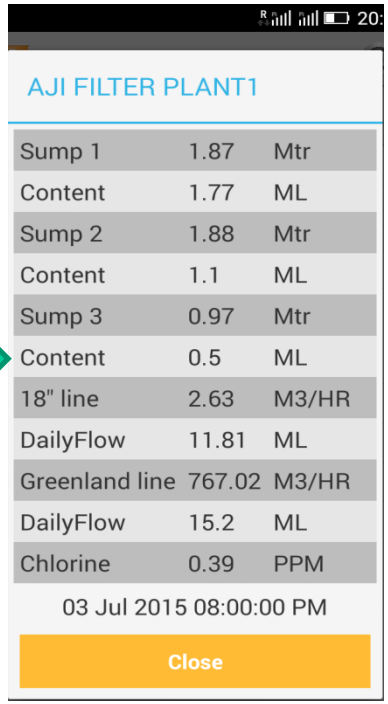
- Centralized Monitoring System for water Supply & Distribution system.
- More Accountability & responsibility on RMC officials
- Improved management information system
- Since data is available on internet, online monitoring is possible
- Zonal offices becomes more informative & responsible to the public
- Helps to water related conflicts or misunderstanding among citizens specially during peak demand season summer
- Alarm facility can lead to rapid attention to the problem
- Deviation from the standard parameters can be monitored & rectified.





Real Time Bulk Water Audit Project





Surveillance System for BRTS Corridor

- 112 High Frequency Cameras are being installed along the 10.7 km stretch of BRTS corridor.
- Set of two cameras to be placed at:
  - Inside Bus Shelter.
  - Outside the Bus Shelter.
  - At traffic intersections along the BRTS stretch.
- 28 km of 30 km OFC laying work completed.
- 3 X 3 Video wall Control Center ready. Video wall will be placed soon.
- Total Project cost Rs.2.37 Crore.

Bicycle Sharing

- Smart Card based system to get bicycle
- Ticket Vendor will issue bicycle and update status
- Real time booth wise bicycle availability on web
- Member can drop bicycle at any booth
- For non-member Government ID required to get bicycle

Special application to track bicycle

Status of Bicycle Availability available on single click

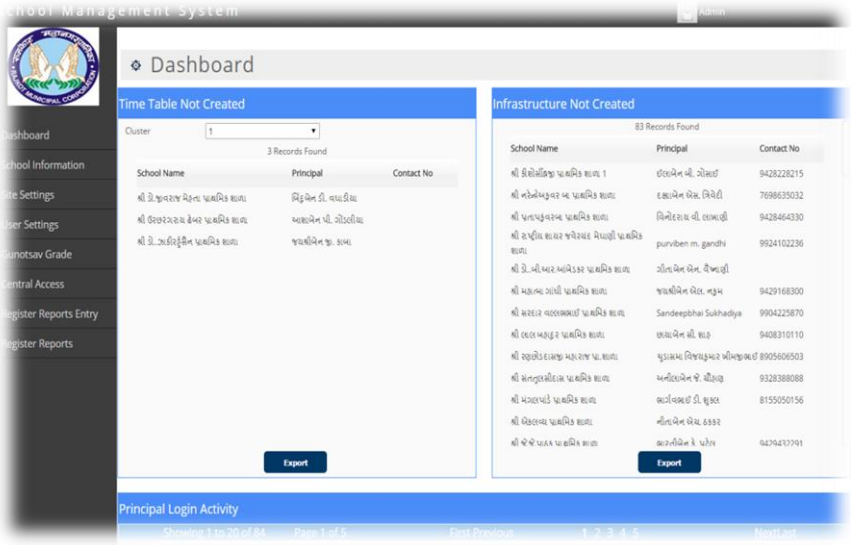
App will run on Android Tab

School Dropout System

- Tracking of Dropout Students, SMS Alerts to parents
- Identifying the Expected Dropout Students
- Enrolment and Migration information of Students
- Tracking of daily attendance of students and teachers
- Information of Mid-day Meal, Tithi Bhojan, infrastructure of schools, Kanya Kelavani Survey/ Praveshotsav, nutrition level of students
- Academic records of students and Gunotsav
- Facility to provide L.C. of all old students
- Information of Alumni

Biometric Presence using Face Detector

Total 81 School Covered



Energy Efficiency measures by Installation of Energy Saver Units (Intelligent Streetlight Controllers)

- Total 27 nos. ESUs are installed on major roads
- Average 25% Energy Saving is observed
- Accurate ON/OFF as per Twilight Timings
- Immediate Fault Rectification
- Annual Savings: Rs. 21,90,000
- Capital Cost: Rs. 28,35, 000 (Rs. 105000 each)
- Pay Back Period: ~ 1.5 Year

Technology used by Light Department

- Installation of Astronomical ON-OFF Timers
- Total 335 nos. of Astro Timers are installed
- Accurate ON-OFF of street light network
- Average 5-6% Energy Savings due to twilight mode
- Accurate 20 min ON/OFF per day
- Pay Back Period: ~ 1 Year

Use of LED lighting on major Roads

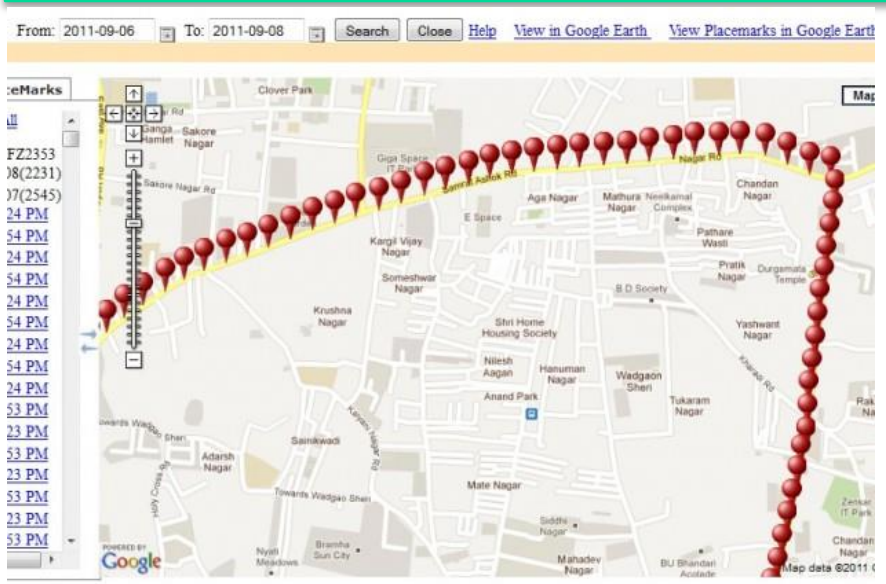
Covered 11.5 km with LED lighting

Door to Door Garbage Collection with GPS enabled Tipper Vans

- Initially Started with 42 Tipper Vans for 6 wards out of 23 wards as pilot project
- Purchased 117 mini tipper vans for four cluster and covered 14 wards for three year
- For remaining wards process is in progress. Total 114 mini tipper vans received out of 125 mini tipper vans
- Every tipper van is equipped with GPS to monitor garbage collection from anywhere through web enabled software
- Fix amount per ward is approved for door to door collection of garbage
- Very soon city will be bin less

GPS is used to monitor

Secondary Collection Improved



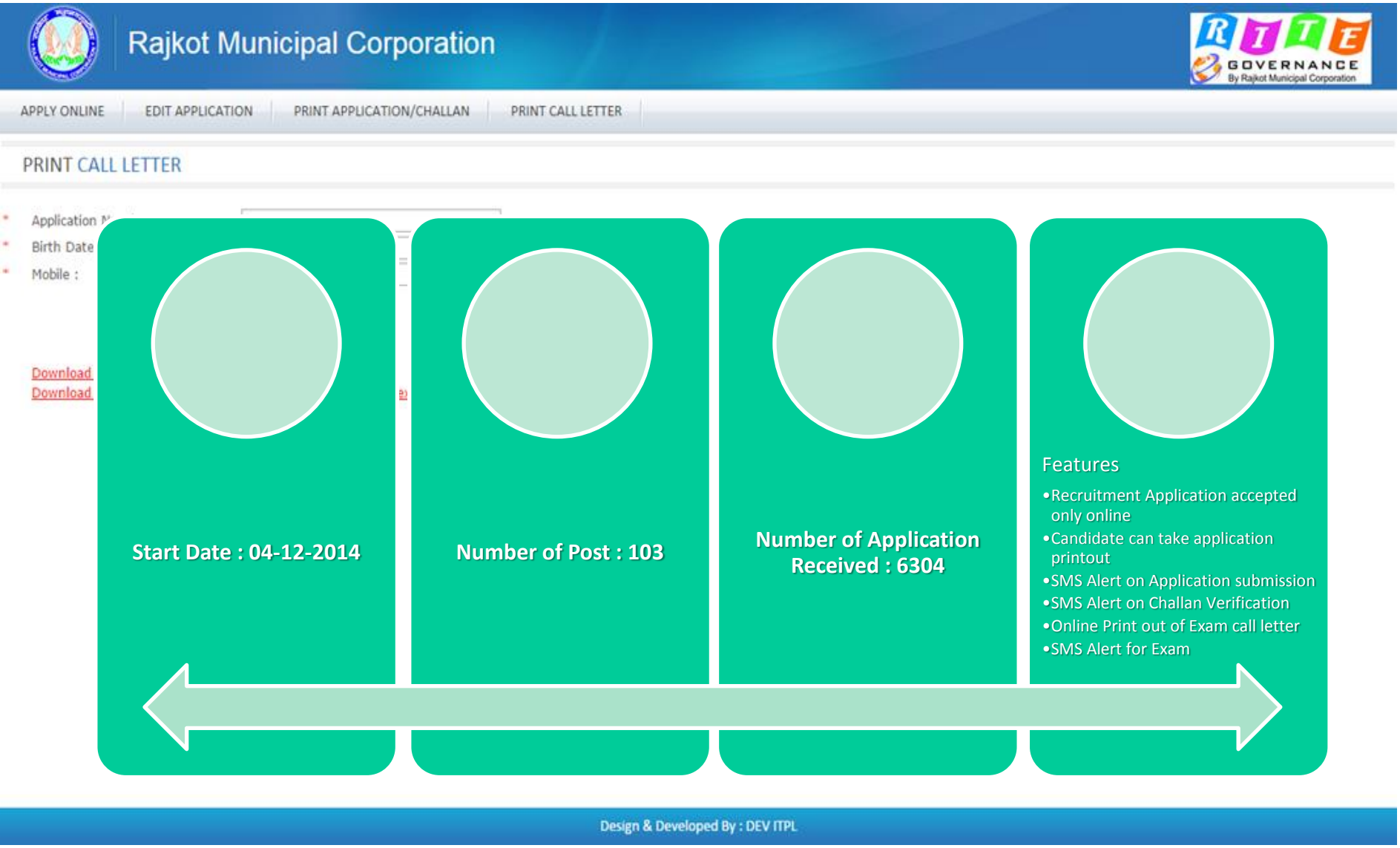
Improves city health by same day collection and disposal at dumping

80% city is covered only 5 wards left

Animal Nuisance Control

- 300 RFID (Microchips) implanted in cattle at conservancy cattle pound
- Software Developed for monitoring
- Pilot project successfully implemented
- Impounded cattle are implanted RFID at the time of release
- Multiple occurrences of impounded animal registered through reader in the software and fined accordingly

Online Recruitment System



STREET VENDORS REGISTRATION

Start Date : 01-01-2015

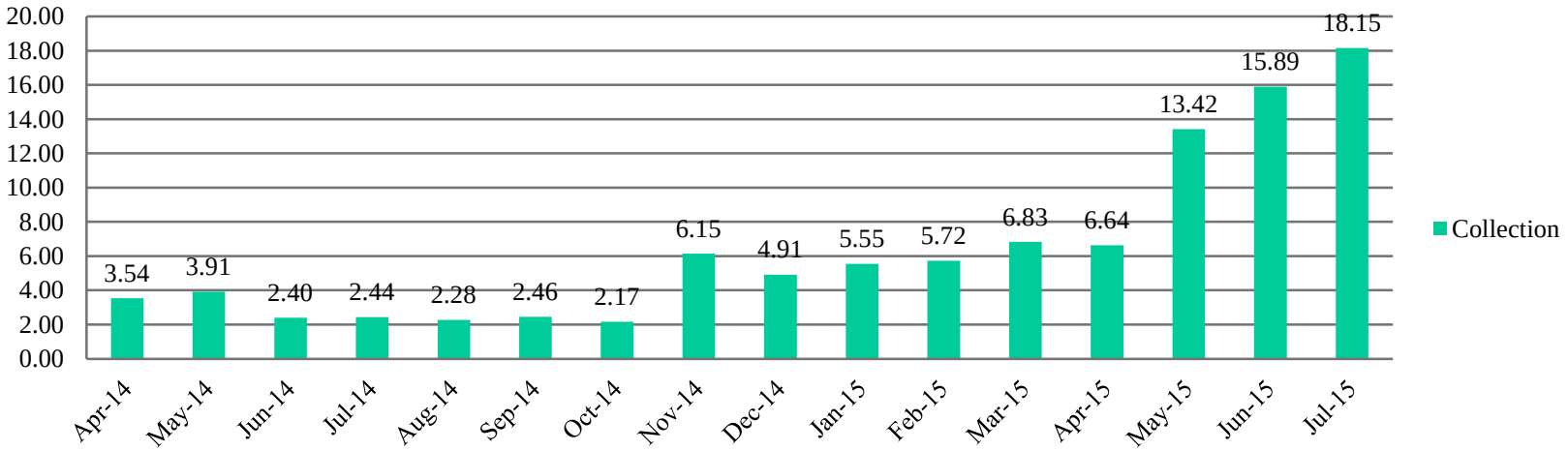
Number of Registration : 13087

Number of Hawkers Zone : 105

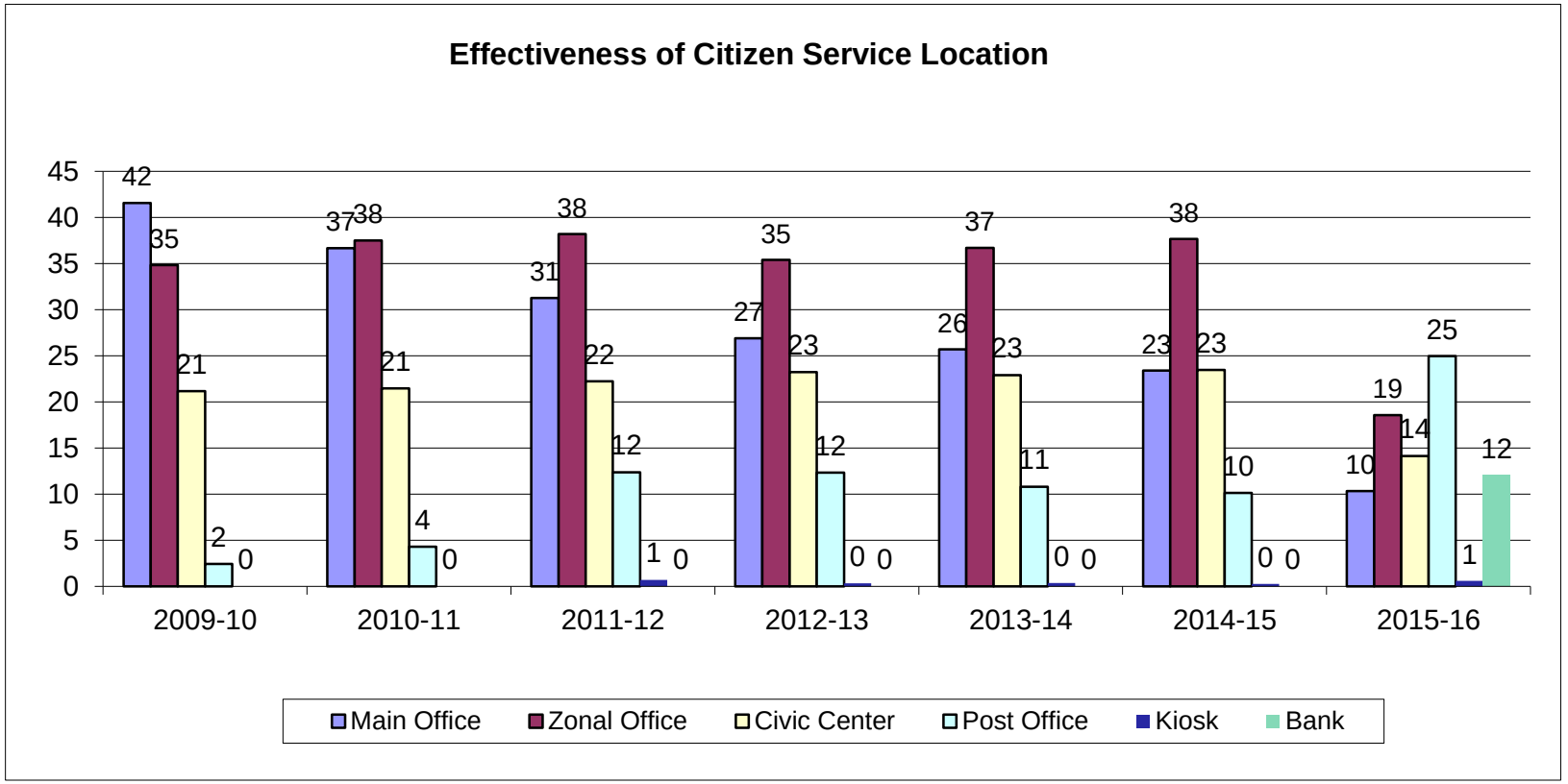
Features :

- Photo Capture at the time of Registration
- Printed Registration Certificate Given
- I-Card for every Street Vendor
- Monthly Fee Collection

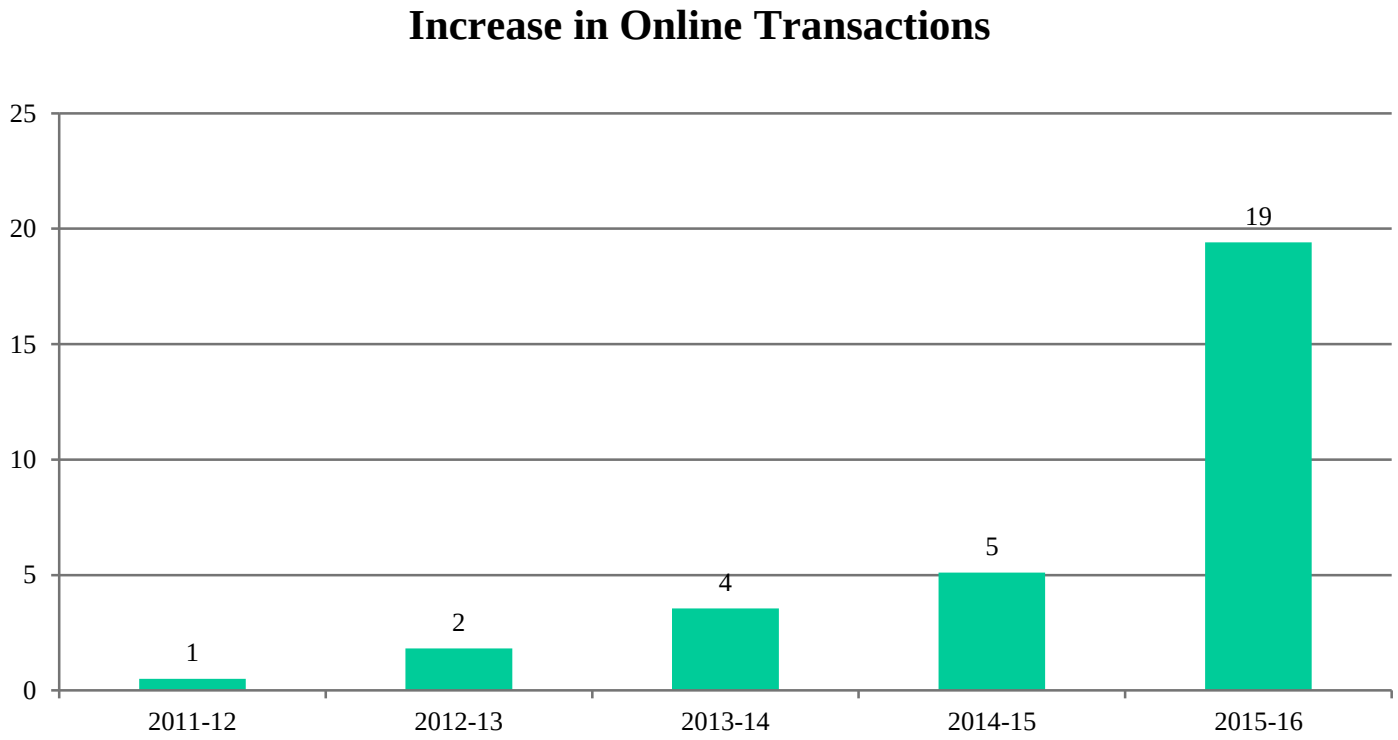
Collection



Impacts on Citizen



Increase of Online Transactions



HOW TO REACH RMC

www.rmc.gov.in

24X7 Call CENTRE
2450077

Mobile APP

facebook.com/rajkot municipalcorporation

- ❑ 3 Zonal Office
- ❑ 6 City Civic Centre
- ❑ 4 Kiosk
- ❑ SMS Gateway

7046450077

National E-Governance Award

Award	National e-Governance
Category	Innovative Use of Technology in e-Governance
Given By	DARPG, Government of India
Year	2011

Government of India

National Award for e-Governance, 2010-11

presented to

e-Governance
Rajkot Municipal Corporation, Government of Gujarat

For

Innovative Use of Technology in e-Governance
Bronze

R C Misra
Secretary
Deptt. of Administrative Reforms & PG

Web Ratna Awards

Award	Web Ratna
Project	RITE e-Governance
Category	Innovative Use of Technology
Given By	NIC, Government of India
Year	2012

Nagar Ratna Award

Award	Nagar Ratna
Project	Call Center
Category	Complaint and Redressal
Given By	All India Institute of Local Self Government
Year	2011

CSI Nihilent Award

Award	CSI Nihilent Award
Project	m-Governance
Category	G2C
Given By	Computer Society of India (CSI)
Year	2012

CSI-Nihilent e-Governance Awards 2011-12

The Award of Excellence in

Project Category –G2C

is hereby conferred upon

m-Governance, Rajkot Municipal Corporation, Govt. of Gujarat

2nd of December 2012 at Kolkata

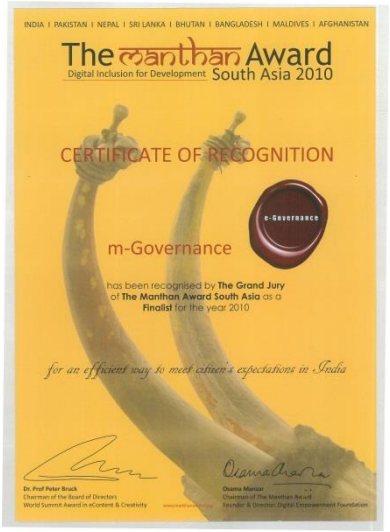
Surendra Kapoor
Convener
CSI-Nihilent e-Governance Awards

Satish Babu
President
Computer Society of India

L.C. Singh
President & CEO
Nihilent Technologies

Nihilent
evolving ideas

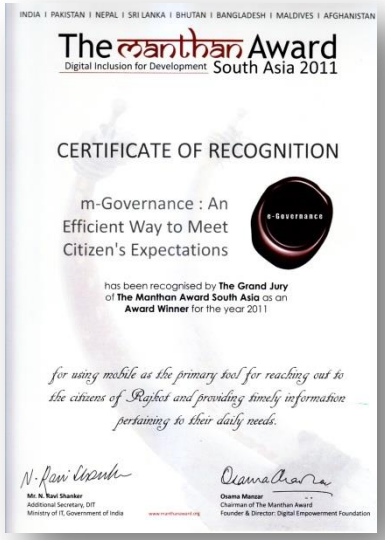
Other Awards



2010

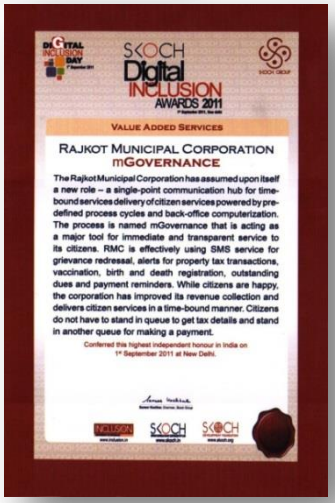
2012

2011



2011

2010



2011