

## **Introduction & Executive Summary**

**Company:** Rayankadeh Apadana Company (Reg. No. 4293), provider of Satia products.

**Credentials:** Holder of ISDP License No. 104-36-12 and ISO9001:2000 Certificate.

**Date:** 2015/01/28 (Persian Date: 1393/11/8)

**To:** The Honorable Municipality

**Subject:** Municipality Unit 137 Automation Software

**Content:** Respectfully, we inform you that a capable "137 Unit" in any city can build public trust in the municipality and prevent repetitive visits by citizens.

1. It creates an evaluation and feedback system for the performance of executive units based on citizen messages with public participation.
2. It identifies major urban issues by noting the frequency of complaints and marking high-complaint locations on the urban GIS map.

As you are aware, following the Administrative Integrity Law, all municipalities are required to create a system for recording and tracking citizen complaints (137). If we consider "Citizen Satisfaction" as the ideal, "Enhancing Efficiency, Acceptability, and Legitimacy" as the mission, and "Developing a People-Centric Culture" as the goal, the implementation of the mechanized 137 system can significantly aid these objectives. In large cities, traditional methods are no longer sufficient for good management, and IT is considered a factor in realizing public supervision.

**Challenges & Solutions:** Municipalities typically face problems such as: 1. Budget deficits, 2. Staff shortages, 3. Lack of accurate performance reports, 4. Low organizational productivity, 5. Lack of public trust. Implementation of this software in cities like Karaj, Arak, Ahvaz, Bandar Abbas, Chabahr, and Birjand has helped solve these problems.

**Example of Budget Efficiency:** Municipalities do not have the budget to set traps for rats in all streets. However, with our software, for every rat complaint, a flag appears on your city map at the complaint address. You can identify the epicenter of the problem and spend your limited budget in the best way to solve it. You can view "Problem Density" reports for all complaint topics.

**Addressing Staff Shortages:** This software automatically categorizes citizen requests by subject, captures mobile numbers, and records the citizen's voice.

1. It automatically SMSs the complaint to the responsible official and instructs them to SMS the number '5' after completion.

2. It tracks overdue tasks via automatic SMS.
3. In the final stage, after the work is reported as done, it sends an SMS to the citizen: "Dear Citizen, it is reported that your request regarding [e.g., Asphalt] with tracking code [...] has been completed. If you confirm, reply 1; if you deny, reply 0." The result is recorded in the reports.

**Reports:** With a few clicks, you can see annual performance reports. A) Executive Unit Report: (1) How many requests were referred? (2) How many were done and confirmed by people? (3) How many were claimed done but denied by people? (4) How many have no response?

### **Performance Statistics & Trust**

#### **Narrative:**

**Low Organizational Productivity:** One contractor in Arak said, "Since tasks started being referred via SMS, we can't avoid doing the work. If we reply that we did it, the supervisor asks why so many people are denying it. If we don't reply, the supervisor asks why we aren't answering requests." Previously, they could just say the "Magic Key" words: "Yes sir, yes sir, yes sir," and end the matter.

#### **Lack of Public Trust:**

Using these electronic tools honors the citizens and increases trust:

1. After registration, an SMS is sent: "Your request is registered. Tracking code: ..."
2. After completion, an automated SMS asks for validation. *Anecdote:* A citizen in Arak was surprised to receive a verification SMS regarding trash collection and said, "The Municipality of Arak doing this?!" Upon seeing the trash collected, they were amazed by the accountability.

**Results of Satia 137 Implementation:** A) 30% increase in permit issuance revenue due to organized reporting of construction violations. B) 30% increase in citizen satisfaction. C) 30% increase in productivity of executive units (achieved with a low cost of ~12,000 Tomans for SMS).

#### **Table: Performance of Arak Zone 3 (Shahrivar, Mehr, Aban)**

Month	Total Requests Referred	No Response from Unit	Unit claims done, Citizen hasn't replied yet	Done & Confirmed by Citizen	Unit claims done, Citizen Denied	In Progress (Scheduled)	Voided Referrals
Shahrivar	391	245	20	103	0	17	0
Mehr	652	253	29	237	0	128	0
Aban	643	206	25	219	3	185	3

## System Workflow & Complaint Types

### How the System Works:

1. **Citizen Calls:** Reports a problem (e.g., missed trash). The operator registers it. (If IVR is purchased, this is automatic).
2. **Notification:** Software instantly sends an SMS to the responsible official: "Subject: Trash, Address: [...]. Please SMS '5' after completion or reply online."
3. **Action:** The official SMSs '5' or updates the status via the web portal/app.
4. **Validation:** An automated SMS goes to the citizen to confirm or deny the work.

**Reports:** Reports are based on responses from executive units and citizens. You can identify weak or unresponsive units. *Note:* In some cities, the mayor ordered all construction violations to be tracked here, improving revenue significantly.

**Table: 3-Month Report of Citizen Request Topics (Sample):**

Subject	Total Requests	Total Completed
Asphalt	1364	69
Waste/Trash	921	719

<b>Subject</b>	<b>Total Requests</b>	<b>Total Completed</b>
Vermin (Rats)	468	199
Regions - Other	436	203
Dredging	412	328
Illegal Construction	235	162
Stray Dogs	194	139
(And others: Obstruction, Green Space, etc.)	...	...

## **Analysis & GIS Features**

### **Case Study: Stray Dogs**

- **Shahrivar (Sept):** 250 Reports, 70 Claimed Done, 20 Denied.
- **Mehr (Oct):** 290 Reports, 50 Claimed Done, 30 Denied.
- **Aban (Nov):** 136 Reports, 124 Claimed Done, 12 Denied.
- **Azar (Dec):** 58 Reports, 50 Claimed Done, 8 Denied.

**Analysis:** The chart shows stray dog reports peaked near 300 in Mehr. The contractor claimed 50 done, but citizens denied 30. The contractor was fired. A new contractor started in Aban, identified hotspots, and resolved them. Complaints dropped to 136 in Aban and 58 in Azar.

### **GIS Support:**

The software utilizes GIS databases to match addresses.

1. Search and view streets/places on the smart GIS map.
2. Filter by municipality zones.
3. Locate government centers, hospitals, parks, etc.



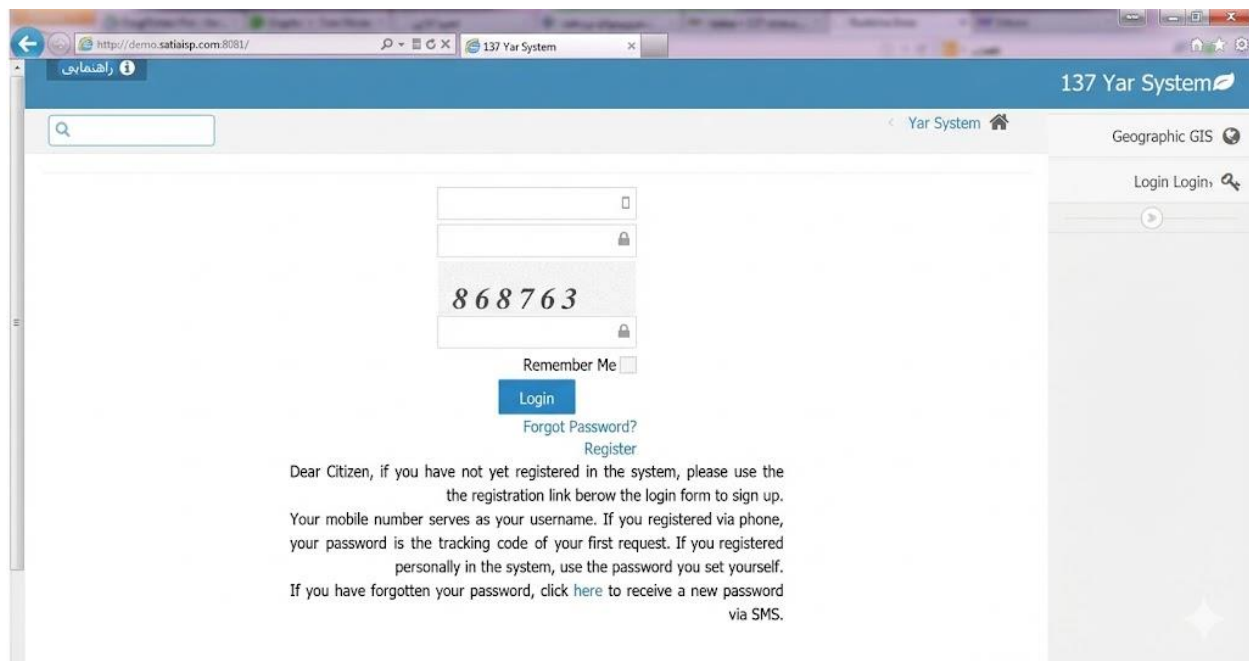
## Unit Performance Reporting

**Chart:** Bar chart comparing months (Aban, Mehr, Shahrivar). **Chart:** Performance of Units - Page 1 (Percentage of tasks completed).

**Explanation:** The blue bar is total referrals, red is completed, green is scheduled. The bottom chart shows the percentage of completion. For example, the "Construction Police" unit accomplished 10.87% of assigned tasks in Aban (Note: the text says 10.87%, though the chart numbers look different, e.g., 99.58% for Waste Management).

**Access for Citizens and Managers:** Citizens and employees can log in to the site (e.g., arak.ir.137) using their mobile number as the username. They can view their dashboard, track requests, or see reports on subordinates. Citizens can send electronic letters to specific units (Security, Inspection, Mayors) and view replies.

## Login & File Uploads



137 Yar System

راهنمایی

Yar System

Geographic GIS

Login

868763

Remember Me

Login

Forgot Password?

Register

Dear Citizen, if you have not yet registered in the system, please use the the registration link below the login form to sign up. Your mobile number serves as your username. If you registered via phone, your password is the tracking code of your first request. If you registered personally in the system, use the password you set yourself. If you have forgotten your password, click [here](#) to receive a new password via SMS.

## Features:

- Citizens not yet members can register via the link.
- **Password Recovery:** Managers or citizens who forget passwords can have a new one SMS'd to them, reducing IT workload.

- **File Attachment:** Citizens can attach images or files to their requests via the website. Operators can also add documents to a request.

## **IVR (Interactive Voice Response) Features**

### **Summary of IVR Capabilities:**

1. **After-Hours:** Records citizen requests outside office hours.
2. **Auto-Tracking:** Citizens can enter a tracking code to hear the status of their request.
3. **Manager Access:** Managers can listen to recorded messages and refer them.
4. **Mobile Capture:** Captures the caller's number for SMS replies.
5. **Quality Survey:** Upon finishing a call, the system asks: "If satisfied press 1, relatively satisfied press 2, dissatisfied press 3."
6. **Read Password:** If calling from a registered mobile, pressing 3 reads out the login password.

### **IVR Menu Structure:**

- "To register a new request, press 1."
- "To track previous requests, press 2."
- "For system password, press 3."
- "To speak to an operator, press 4."

### **Sub-menus:**

- (If pressing 1): "For Asphalt press 1, Waste press 2, Construction Violations press 3..."

## Call Logs & Scoring Model

The screenshot displays a call log interface. At the top, there is a list of call records, each with a right-pointing arrow and a call ID followed by the recording date and time. The records are:

- 3137434 (Recorded on 92/01/28 08:17:17)
- 3134820 (Recorded on 92/02/05 03:20:46)
- 09188242885 (Recorded on 92/02/12 14:28:18)
- 09188242885 (Recorded on 92/02/13 06:32:54)
- 09183428582 (Recorded on 92/04/17 03:05:23)

The bottom record is expanded to show a detailed view. On the left, the text reads: "On 1392/04/17 07:35 A subject with the following description has been registered for it: Tracking Code: 9204171". The "Tracking Code: 9204171" is circled in red. To the right of the text is a video player interface with a play button, a stop button, a progress bar (showing 00:00 / 00:06), and volume controls.

**Scoring Calculation Chart:** The system assigns scores to regions based on the status of messages.

- **Satisfied Citizen:** +1.5 points.
- **Dissatisfied Citizen:** -0.5 points.
- **Inspector Confirmed:** +1 point.
- **Inspector Rejected:** -1 point.