

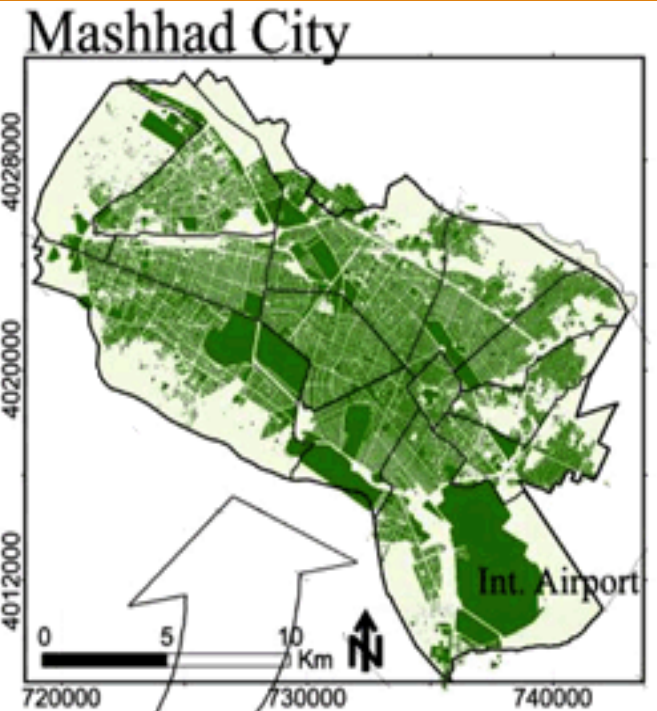


# CITIZENSHIP PAYMENT MANAGEMENT PLAN

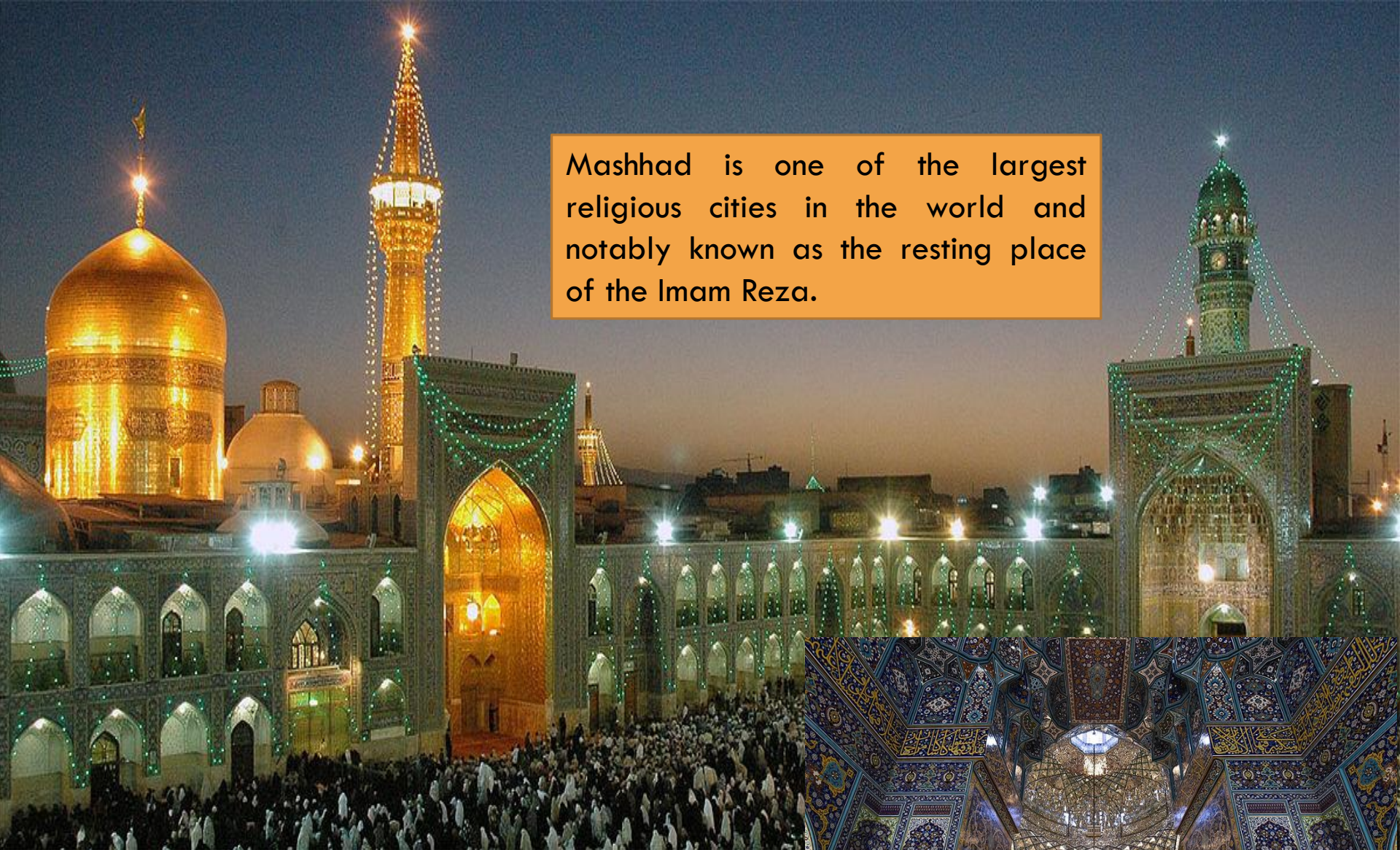
ROGHAYEH HAJIZADEH TOUSI



# Holy City of Mashhad

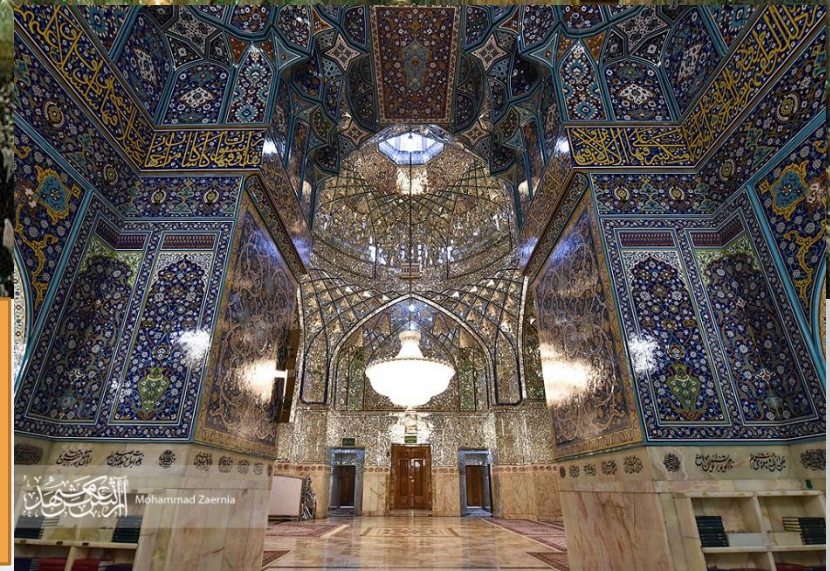






Mashhad is one of the largest religious cities in the world and notably known as the resting place of the Imam Reza.

The city is most famous and revered for housing the tomb of Imam Reza, the eighth Shia Imam. Every year, millions of pilgrims visit the Imam Reza shrine and pay their tributes to Imam Reza.





- Mashhad with a population of 3,131,586 is the second largest city in Iran and capital of Razavi Khorasan Province. It is located in the northeast of the country, close to the borders of Turkmenistan and Afghanistan. It was a major oasis along the ancient Silk Road connecting with Merv in the East
- Mashhad is also known as the city of Ferdowsi, the Iranian poet of Shahnameh, which is considered to be the national epic of Iran..







Mashhad At a Glance







## vision

- Smart city management using new technologies based on the participation of all stakeholders



## Goals

- Attracting citizen participation and providing integrated and adaptive technology solutions for all urban services with the goal of increasing the quality of life and gaining value for all stakeholders through providing efficient and comprehensive access to services and facilities in all areas of the city of Mashhad.



## strategy

- 10 City intelligent management based on the participation of all stakeholders
- The access of all stakeholders, business owners, citizens, tourists and ... to the required information and data.
  - Development and improvement of information technology infrastructure
  - Development of private sector cooperation and public participation
  - Creating Integrity in Digital Public Knowledge

**In our city, the municipality and ICT organization are responsible for ICT Services**

Such as:



**Data Center**

**Optical fiber**

**Organizing telecommunication antenna**

**Building of ICT infrastructure**



**Building constriction certificate**

**Building completion certificate**

**Trees replacement**

**Automation of services**



**Manage street lighting**

**Intelligent Irrigation**

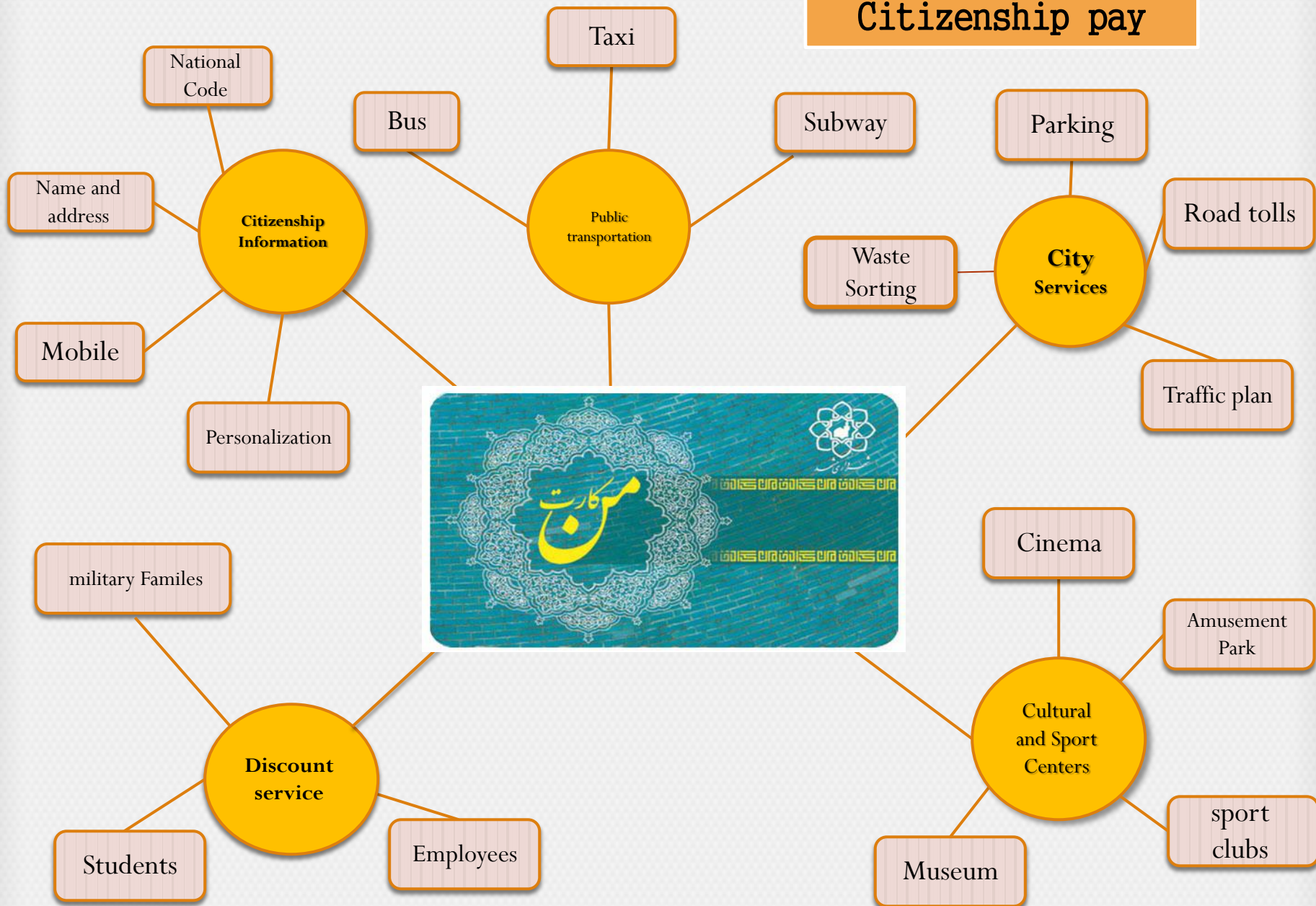
**Waste Management**

**Citizenship pay**

**smartening**



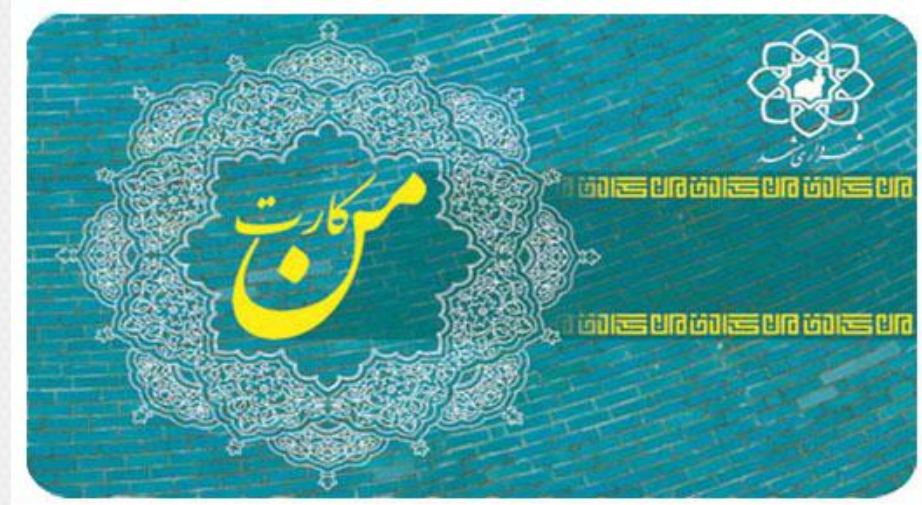
# Citizenship pay





# CITIZENSHIP CARD MY CARD

**Citizenship card called My-Card with an approach to use in all areas of "Citizenship pay"**



**The card works in off-line mode and money is a stored inside the built-in chip.**

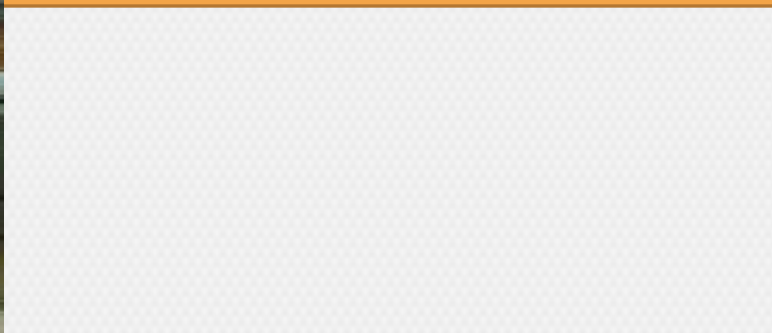


# INTRODUCTION

Integration of services to citizens in the field of intra-urban transport based on ICT is one of the requirements of the e-municipality and the citizen's e-mail. A large group of citizens and pilgrims use public transportation services based on citizenship cards.

The development of the electronic payment plan for renting the public transportation network and passing it to marginal and non-marginal parking lots, controlling entry into, limited traffic zone,, tolls, etc. is a very effective step in increasing the use of information technology in Mashhad.

This project is considered as one of the main aspect of the management of intra-urban transport systems.





# RUN THE PLAN

- The use of citizenship card for the first phase in public transport (buses and subways) as electronic tickets and personalization and discounts was considered.
- Activities of the first phase
- Bus and Metro Management and Supervision System
- Parking Management and Supervision System





# LAYOUT GOALS



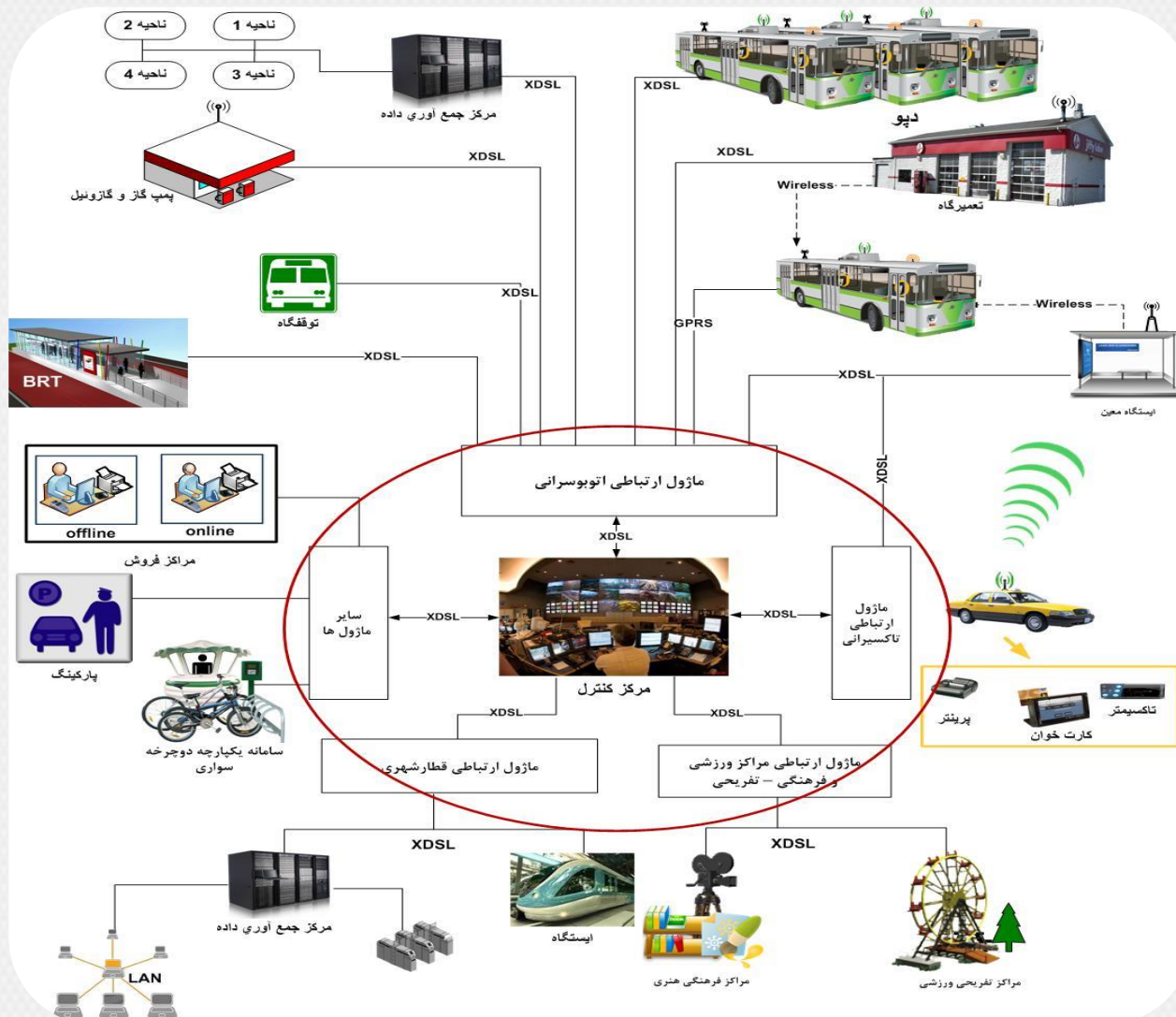
## Integrated technology development

- ☐ Mobile technology (automotive to infrastructure)
- ☐ Vehicle communication (vehicle to vehicle)
- ☐ Computer and Electronics (onboard tools, servers)
- ☐ Sensors, combined / network sensors (sensors for cars, roads, etc.)

## Social goals

- ☐ Road safety (preventing accidents, reacting, etc.)
- ☐ Increased mobility of vehicles (eg, re-routing)
- ☐ Sustainability of the environment and energy
- ☐ Vehicle Information Services

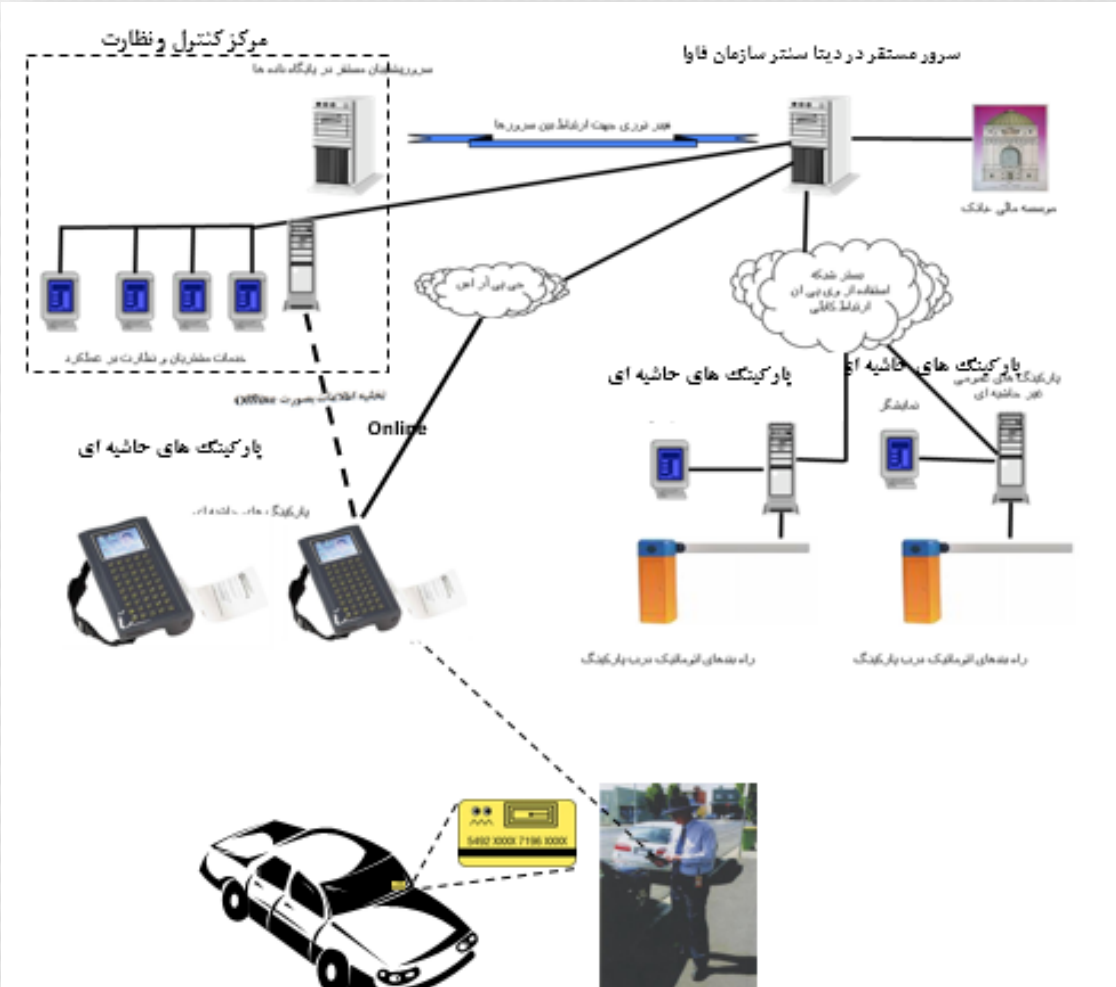




**Due to the nature of the off line card, the existence of export data centers of the card readers (as defined in the figure, such as bus stations, night stations, gas station, etc.) are considered.**



## Implementation of the scheme in public parking lots



**At present, public city parking is under an integrated management, which allows paying for parking using a citizenship card in addition to the app.**

**In pairings equipped with equipment - Sensors are set to fill in and empty - There is a possibility to reserve a parking lot.**



# Introduction of components

The purpose of the project is to establish a system of management and supervision of the public transport fleet in the city, which consists of four general parts as follows:

## ☐ AVL (Automatic Vehicle Locator)

The mobile positioning system is responsible for reporting the spatial position of the fleet.

## ☐ AFC (Automatic Fare Collection)

An automated collection system that includes:

- ☐ ticket sales subsystems
- ☐ , an accounting subsystem
- ☐ , an accelerator network subsystem
- ☐ , a reporting subsystem
- ☐ , a communications subsystem
- ☐ , and a banking subsystem.

## ☐ RTPIS (Real Time Passenger Information System)

Information system for passengers at bus stations, including bus arrival time information for lines to the station and line numbers along with their origin and destination, as well as taking pictures of the current population at the station and the number of travel requests.



# Run results

- ☐ Creating a New Mechanism in Urban Information Management (Use of Urban Planning System Statistics)
- ☐ Reduce the cost of human resources and increase productivity
- ☐ Automating the process of collecting rent and preventing people's dissatisfaction
- ☐ Access to analytical information and fair distribution of services.
- ☐ Reduce the cost of transfer money
- ☐ Preparation of the necessary platform for using electronic money in smart city
- ☐ Prevent fake ticket printing and any disturbances in this area
- ☐ Increasing confidence in citizens at the cost of services





# CHARGING METHODS OF CITIZENSHIP CARDS

➤ Charging via the app



➤ Charging via automatic devices



➤ Through the city's stores

# WALLET BASED ON SIM CARD-KIPAD

In this project, the Citizenship Architecture (MAP) is being implemented on the mobile phone in collaboration with JEMALTO, and it is now possible to deduct using a mobile phone operating system.





# Advantages and applications of the plan

- ☐ The use of a comprehensive automated system for collecting freight forwarding
- ☐ Transform and gradually change the ticket printing policy from one day to weekly, monthly and seasonally.
- ☐ Creating New Mechanisms in Urban Information Management
- ☐ Analyzing and evaluating performance and determining the percentage of drivers and routes
- ☐ Removing or minimizing the printing and publishing costs of paper and paperboard
- ☐ Organizing and managing ticket sales
- ☐ Multiple use of the card
- ☐ Generalization of acceptance of cards in different classes of people
- ☐ Better service and customer satisfaction

## Goals and achievements of the plan

- ❑ Improvement of the fleet's motorways and its general policies
- ❑ Applying financial subsidies on the distance traveled by special routes
- ❑ To make any management decisions based on information flow
- ❑ Updating of intra-city travel data and received revenues
- ❑ Developing the use of electronic ticket cards in other urban services such as mobile card, parking card, taxi card, shopping cart and ...
- ❑ The ability to control and monitor the bus and the outside of it



# Opportunities and Challenges

## Opportunities

- ❖ focusing on the provision of municipal services based on the urban unit management
- ❖ Distribute several million ticket cards and gradually convert them to rechargeable smart cards.
- ❖ Creating new and sustainable sources of income for municipalities
- ❖ Strengthening inputs and IT infrastructures (urban information)
- ❖ Creating new platforms for interaction with citizens in the IT area with the goal of developing services
- ❖ Change the approach of municipalities and the use of knowledge management in new work spaces.

## Challenges

- Failure to complete timely execution of the plan and delayed operation
- Lack of information and culture for proper implementation of the project
- Depending on the specific, unique, non-transferable and non-expandable technology of the project