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Urban environment conception “Smart city”

In the age of rapid development of information technologies, the phrase "smart city" is heard more often. "Smart City" is a concept for the development of the urban environment, which integrates information and communication technologies and the possibilities of the Internet of things. Nowadays, the world leaders in the "smart city’s" strategy are the state-city Singapore and South-Korean Songdo. "Digital Economy" program was approved in the Russian Federation on the 31 of July 2017. The Development of "smart cities` technology" is one of the global goals of this program, Moscow and Sochi are selected as pilot cities.

"Smart City" is more than a mass of buildings and services - it is a self-learning and developing intellect, which is directed to improve the quality and safety of life. The variety of detectors, sensors, electronic displays, mobile applications, digital cameras, online services collect, store and transfer data to automated control centers. Modern engineering ideas give an opportunity for the municipal apparatus to work together with the townspeople, collect data and make a right decision.

We can select some key functional areas of “smart city”:

1. Public safety is an area which includes technologies for rapid collection, analysis and transfer data with the aim of instant response to law offenses. In addition to the safety of public order, this includes transport and information security.

2. The key task of healthcare’s area is to interact between patient and doctor 24 hours per week. Monitoring the patient's health round the clock allows react immediately in cases where indicators show out a threat to life and health.

3. The main aim of energy resources’ area is to rationalize use of energy resources (water, gas, heat, electricity). Every citizen has an opportunity to manage them independently through a "request-receipt" system in depending on their needs. Such system leads to economic savings, because resources are involved only when they are demanded.

4. "Smart city’s" transport is based on an intelligent transport system, which is based on the integration of information and navigation technologies in a single platform. Passenger is the key element in this system, who receives information about public transport by any accessible way (mobile application, touchscreen electronic display at a stop). The purpose of automated control center is to redistribute urban and public transport flows with the help of collecting information from mobile devices about traffic jams, large congestion of passengers at stops, and poor-quality road surface (accelerometer functions). Electronic road signs change their image depending on the situation on the roads.

Undoubtedly, “smart cities” is our future. Implementation and realization projects of this concept requires significant financial investments into the technical equipment, organization systems for collecting and storing large data streams, development of cyber security and anti-vandalism systems.

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