Meeting: Internet of Things
Committee: Rising Awareness of Internet of Things
Country: Bosnia

Ten years ago there were about 500 million devices connected to the Internet. Today, that number has grown to between 10 and 20 billion. By 2020, there will likely be 40 to 50 billion. Many of these will be devices we are familiar with today: laptops, tablets, smartphones. But far more will be physical objects whose main function, without any human intervention, will be to capture data (typically via sensors) and then transmit it elsewhere over the Internet where it can be stored and analyzed to enable better decision-making.

In short, we will have an Internet not just of computers, but of things. Anthing – even a human body, if equipped with the right electronic parts – can become part of IoT, so long as it can collect and transmit data through the Internet.

The market of Bosnia is characterized by poor appliance of IoT products that may be classified as test solutions providing the feedback for a specific users needs in this ecosystem. Through out different kind of startups and projects with local community. Market of Bosnia is aware of couple IoT products: Smart Bench, eBikes, On Time Transit System, Smart Lights, Interactive Maps, Smart Torch, Smart Parking, Smart Air System, and Smart Trash Can. Startup projects open the door for the further IoT solutions appliance, such as eHealth, Connected Car, Smart Traffic, Smart Buildings, Smart Metering, Smart City.

Therefore, next step of telecommunication sector in Bosnia is to perform market research in order to create the challenging IoT products and business models. This should be followed and supported by technological and communication infrastructure improvement. A forementioned processes should be temporarily adjusted if it is allowed by different conditions, such as market state, regulations, competition, etc. An important aspect is the current state of communication infrastructure in Bosnia in terms of the readiness to support the IoT products.

Since the business models and IoT products have not been clearly defined yet, it is not well understood the exact direction of further communication infrastructure's improvement. However, the current gap between these processes could be considered from the bright side because it gives enough time to the telecommunication sector to coordinate them in order to fulfill market needs and ensure the business efficiency.

According to the information from the Federal Ministry of Transport and Communications, the projection of further development of the telecommunications sector should be in accordance with the world's trends and dynamics through the adoption and implementation of new technologies in order to create conditions for raising the standard of citizens and integration of Bosnia in general global trends. The information and communication technology (ICT) sector already contributes more than 10% of the total world Gross Domestic Product (GDP) and as such should be given special attention and priority.

The smart products and services have a real business cases. This trend helps deployment and the creation of smart environments based on IoT, i.e. global infrastructure for the information society, enabling advanced services by interconnecting things based on existing and evolving interoperable information and communication technologies. The growth of IoT is enabled by extensive range of new technologies, which will have an impact on organizations, affecting business strategy, risk management and a wide range of technical areas. These technologies are used to build generally accepted architecture of any smart concept, including three important components: (1) in-the-field nodes for data acquisition and control, (2) centralized computing infrastructure for system-wide data processing, and (3) communications infrastructure that provides exchange of data between the (1) and (2).

This requires new network strategies toward the fifth generation (5G) architecture, which represents not only a convergence of access technologies, but also a framework that integrates new with existing technologies. The architecture of such network has to integrate the needs of IoT applications and to offer seamless integration. Therefore, such a network needs to provide, much greater throughput, much lower latency, ultra-high reliability, much higher connectivity density, and higher mobility range. This enhanced performance is expected to be provided along with the capability to control a highly heterogeneous environments, and capability to, among others, ensure security and trust, identity, and privacy.