

# Definition of IoT

## IoT

A global network infrastructure, linking physical and virtual objects through the exploitation of data capture and communication capabilities  
[EU FP7 CASAGRAS]

## MTC

A form of data communication which involves one or more entities that do not necessarily need human interaction

## M2M

Information exchange between a Subscriber station and a Server in the core network (through a base station) or between Subscriber station, which may be carried out without any human interaction  
[IEEE 802.16p]

## IoT

A global infrastructure for the information society, enabling advanced services by interconnecting (physical and virtual) things based on, existing and evolving, interoperable information and communication technologies  
NOTE 1 – Through the exploitation of identification, data capture, processing and communication capabilities, the IoT makes full use of things to offer services to all kinds of applications, whilst ensuring that security and privacy requirements are fulfilled.  
[ITU-T Y.2060]

## M2M (service layer)

Considered as a key enabler for IoT

## M2M

Communication between two or more entities that do not necessarily need any direct human intervention

## IoT

a world-wide network of interconnected objects uniquely addressable, based on standard communication protocols  
[draft-lee-iot-problem-statement-05.txt]





The **internet of things (IoT)** is the network of physical devices, vehicles, buildings and other items —[embedded](#) with [electronics](#), [software](#), [sensors](#), actuators, and [network connectivity](#) that enable these objects to collect and exchange data.<sup>[1]</sup> In 2013 the Global Standards Initiative on Internet of Things (IoT-GSI) defined the IoT as "the infrastructure of the information society."<sup>[2]</sup> The IoT allows objects to be sensed and controlled remotely across existing network infrastructure,<sup>[3]</sup> creating opportunities for more direct integration of the physical world into computer-based systems, and resulting in improved efficiency, accuracy and economic benefit; when IoT is augmented with sensors and actuators, the technology becomes an instance of the more general class of [cyber-physical systems](#), which also encompasses technologies such as [smart grids](#), [smart homes](#), [intelligent transportation](#) and [smart cities](#). Each thing is uniquely identifiable through its embedded computing system but is able to interoperate within the existing [Internet](#) infrastructure. Experts estimate that the IoT will consist of almost 50 billion objects by 2020.<sup>[10]</sup>