

**M2M (Machine-to-Machine
Communication)**

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M2M (Machine-to-Machine Communication)

Advancement in communication technology has helped society in a greater way. Today life without mobile is considered just impossible. It has become a necessity gadget.

Technology is becoming efficient and affordable. Today M2M (Machine –to – Machine communication is at infancy level. M2M is expected take a big leap to serve society, corporate, healthcare, supply chain, Fleet Management and various industries.

What is M2M:

- Machine to Machine (M2M) is a term used to describe the technologies that enable computers, embedded processors, smart sensors, actuators and mobile devices to communicate with one another, take measurements and make decisions - often without human intervention.
- M2M utilized the modern, ubiquitous PCS networks to convey their field-based data readings to an internet-based central server. A machine to machine solution comprises of three essential elements: The Field-deployed wireless device, the wireless carrier network and the back-end server network

How it works:

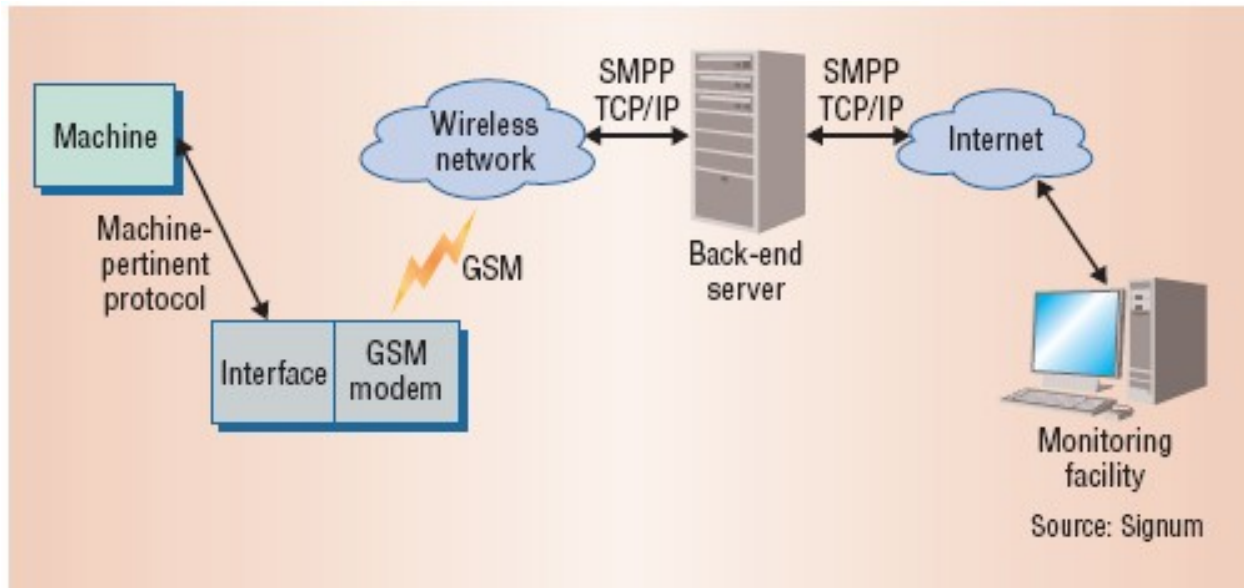


Figure 1: Machine to Machine deployment

Source: IEEE Paper

As shown in Figure 1 machine can be connected with machine pertinent protocol interface can be RS-232, RS-485, Ethernet and ZigBee etc. Machine pertinent protocol will push the relevant data i.e Alarm condition, Temperature/Pressure above threshold etc. This can then be transferred using GSM modem to Mobile operator as wireless communication. Once reached at Mobile service provider it can reach to end user as alert on mobile device (SMS) or as an email alert or simply information can be displayed on remote monitoring system.

So tomorrow if your oven technician calls for an appointment to visit your house to take preventive action on oven before it fails. To your surprise M2M could have submitted without your notice its health status to relevant stake holder.

M2M can be used for life saving equipments to make sure that health of life saving equipment itself is good.