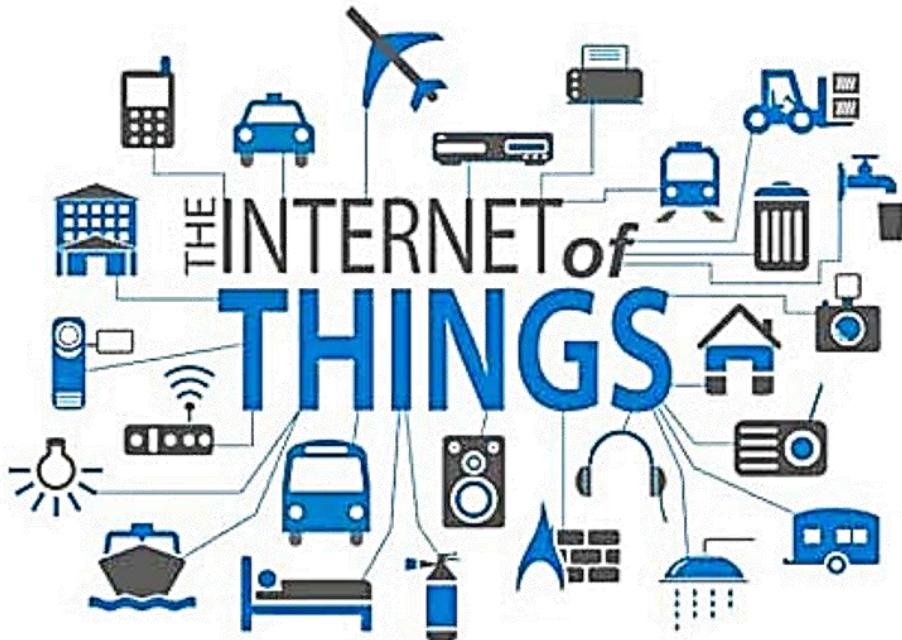


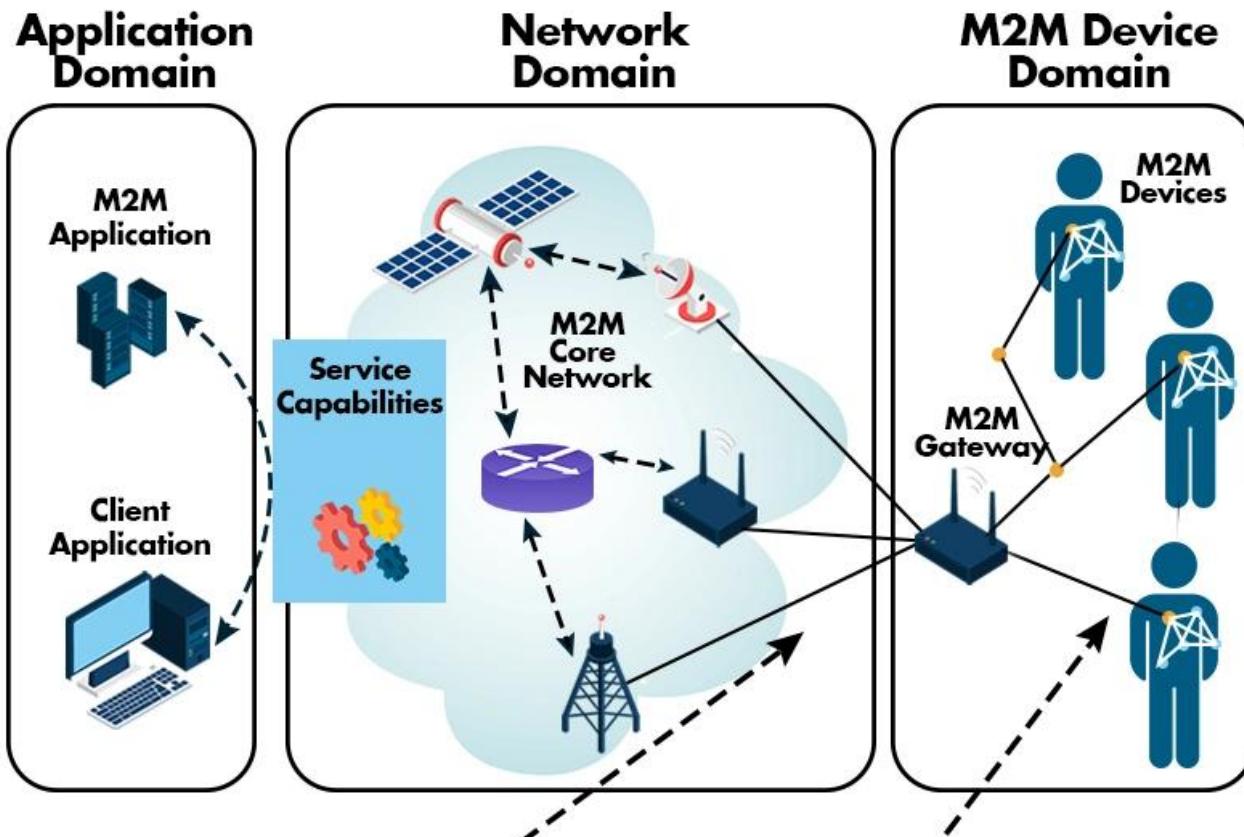
Introduction to IOT



IoT and M2M

- **Provide Remote access – IoT and M2M provide access to information without human intervention.**
- **M2M – M2M provides direct communication between individual machines or devices. It is designed to communicate between devices (Machines) for a specific purpose.**
- **IoT – IoT is a broader concept for internet communication between devices. It involves a wide range of devices, sensors, actuators, and applications that communicate with the internet.**
- **M2M uses non-IP-based proprietary networks and IoT uses broad networks protocol based on IP.**

Simple M2M Architecture

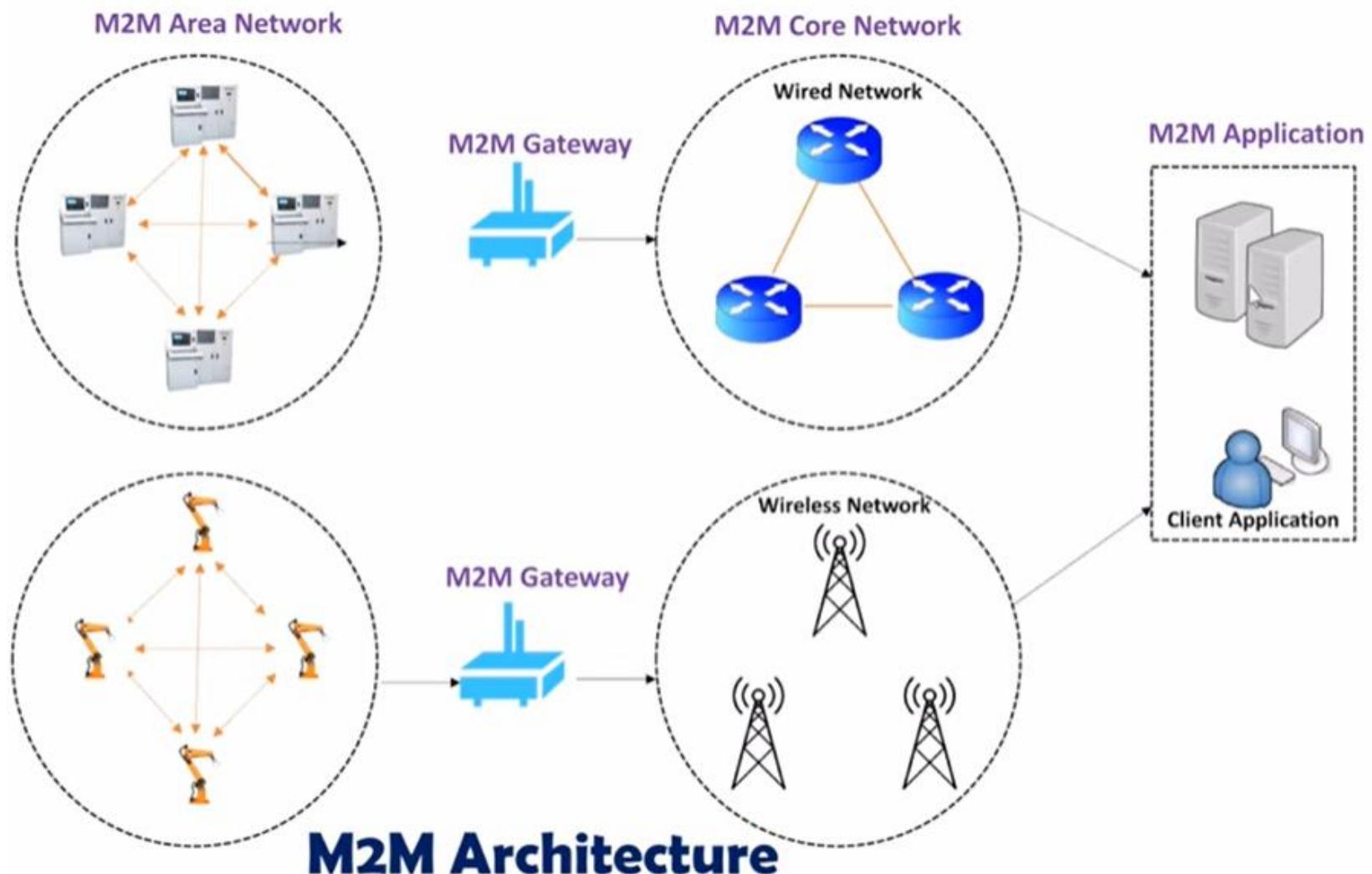


M2M Access Com.Network

- GSM , UMTS
- LTE, LTE-A
- WLAN
- WiMAX
- Satellite

M2M Area Network(WBAN)

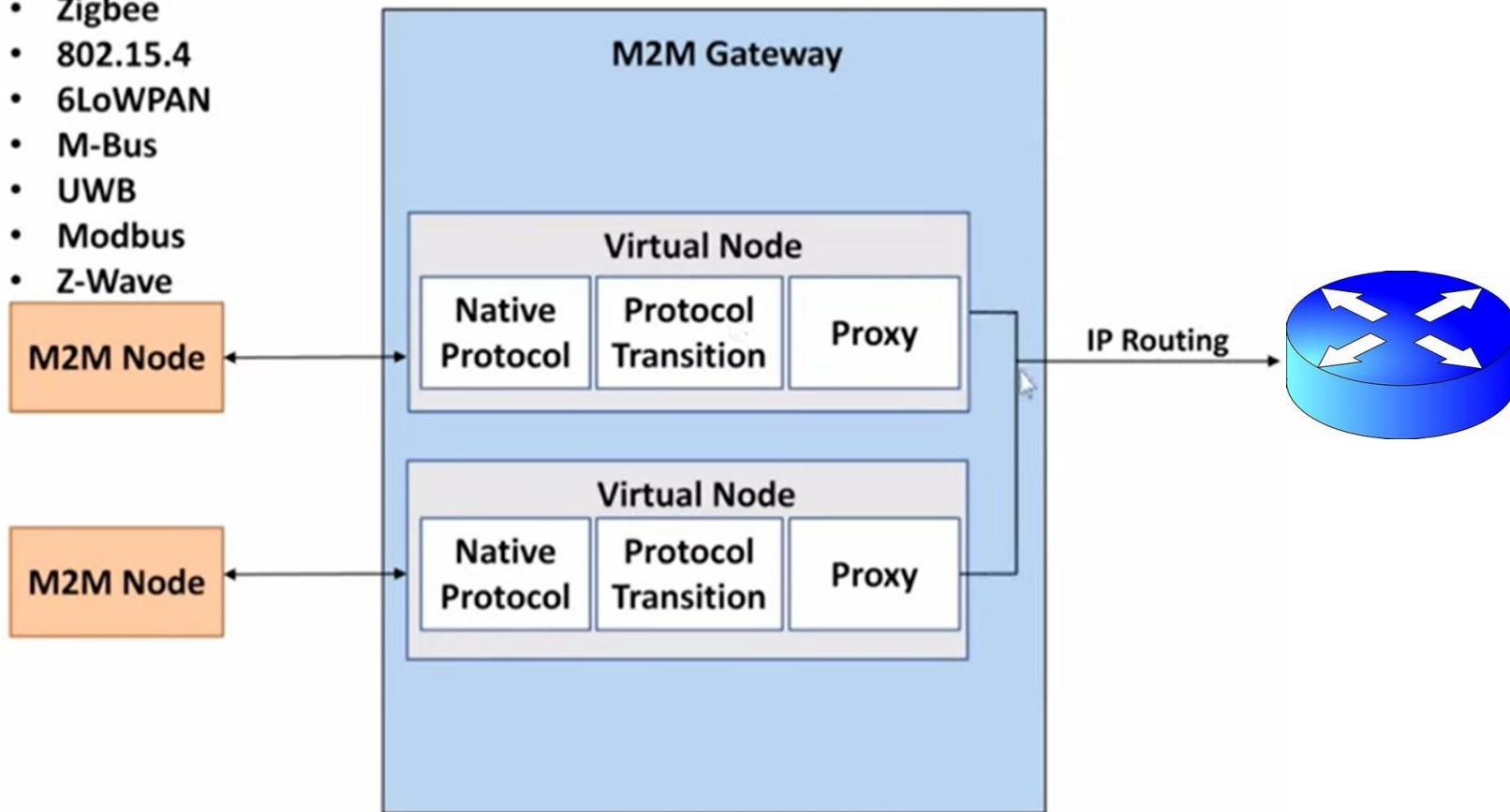
- IEEE 802.15.6,
- Zigbee/IEEE 802.15.4
- Bluetooth
- Bluetooth Low Energy
- Wireless USB
- Proprietary Solutions (ANT, Sensium, Zarlink, Z-Wave)



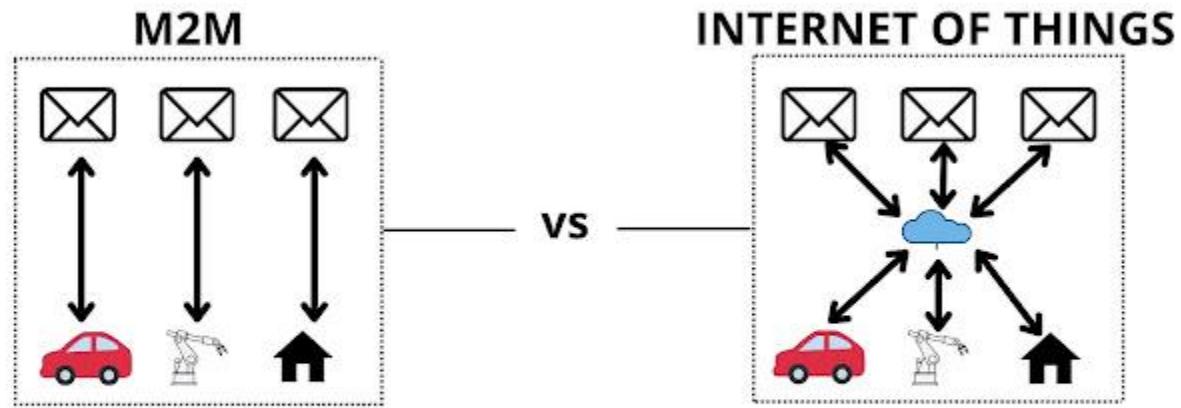
M2M gateway

M2M Networks:

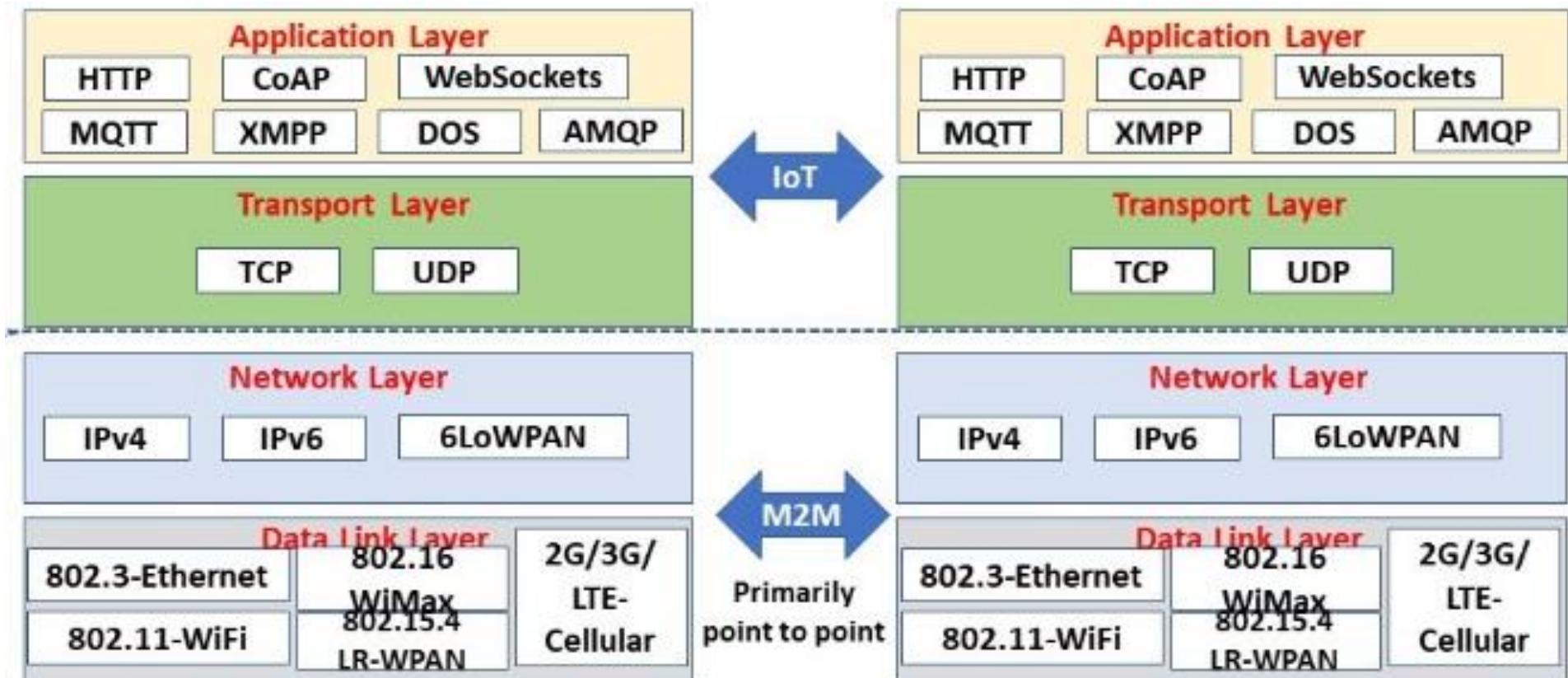
- Bluetooth
- Zigbee
- 802.15.4
- 6LoWPAN
- M-Bus
- UWB
- Modbus
- Z-Wave

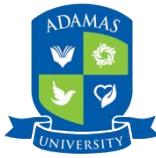


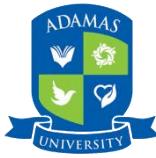
- M2M is Fundamental component of IoT. {IoT is a broader concept for device communication}
- M2M is the Backbone of IoT applications.



M2M Machine 2 Machine	IoT Internet of Things
Direct connection between machines communicating with one another	Over-the-air communication to a centralised or 'cloud' platform
Uses Fixed-IP SIM cards	Uses Fixed-IP SIM cards
Mainly used for automation	Used for automation, sensor information relay and remote maintenance and control
Less scalable	Very scalable
Doesn't necessarily use the cloud	Uses cloud platforms
Uses either an internet or non-internet connection	Uses the internet and cellular networks







Thank You