A Connected Future

The Internet of Things

The Internet of Things (IoT) is transforming the way we interact with our devices at home, at work, and throughout our cities.

This network of connected devices gathers vast amounts of data about our online activities.

Daily Data Generated from IoT Devices

5 quintillion bytes
(1 BILLION GIGABYTES, OR 5 EXABYTES)

SOURCE: CISCO

IoT is empowered by
three key technologies:

Artificial Intelligence (AI)

Programmable intelligence enabling devices to learn, reason, and process information like humans

5G Networks

5G

5th generation mobile networks with extremely fast, near-zero latency for real-time data processing

Big Data

Volumes of data from numerous Internet-connected sources, that are too large for normal processing methods

Together, AI and IoT merge to create AIoT — a smart, connected network of devices that seamlessly communicate over powerful 5G networks — unleashing the power of data better and faster than ever.

#SalmanQadir

So where is AIoT heading next?
We can see these trends all around us.

The 4 Major AIoT Segments

1 Wearables

Wearable devices continuously monitor and track user preferences and habits. Applications include fitness and health trackers, heart rate monitoring, wireless headphones, and AR/VR devices.

Smart watches

AR/VR goggles

Wireless earbuds

2 Smart Home

Smart home devices such as thermostats, coffee makers, lights, and smart TVs learn a user's habits to develop automated home "support" for everyday tasks. Applications include energy efficiency, safety, entertainment, access control, and personal comfort.

Smart speakers

IoT appliances

Smart thermostats

3 Smart City

Smart cities that integrate all levels of municipal services are becoming safer, more convenient places to live. Applications include open data for better urban planning, optimized energy consumption, and increased public safety through smart traffic surveillance.

Smart energy grids

Smart streetlights

Smart public transportation

4 Smart Industry

Smart industry devices—the Industrial Internet of Things (IIoT)—use real-time data analytics and machine-to-machine sensors to optimize operations, logistics, and supply chain. Data generated from these devices helps industries foresee challenges—preventing costly errors and workplace injuries.

Autonomous manufacturing robots

Automated supply chain management
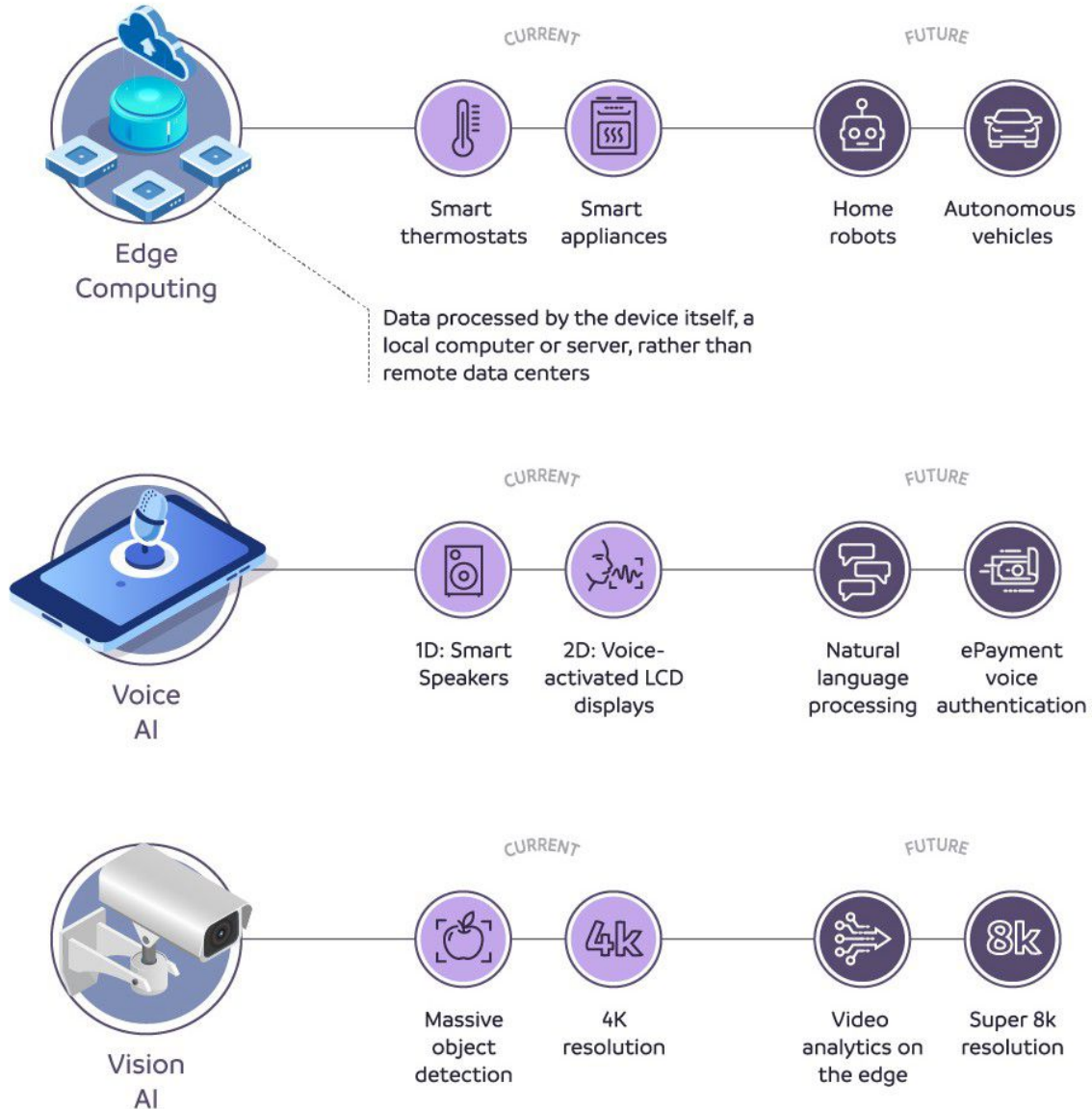
Predictive maintenance sensors

While AIoT technology is still in its infancy, these segments represent a direct impact in our daily lives.

Future AIoT Technologies

AIoT innovation *shows no signs of slowing down.*

AIoT will test how much data our devices can process, future advancements will push the boundaries of processing and learning.

Edge Computing

CURRENT

FUTURE

- Smart thermostats
- Smart appliances
- Home robots
- Autonomous vehicles

Data processed by the device itself, a local computer or server, rather than remote data centers

Voice AI

CURRENT

FUTURE

- 1D: Smart Speakers
- 2D: Voice-activated LCD displays
- Natural language processing
- ePayment voice authentication

Vision AI

CURRENT

FUTURE

- Massive object detection
- 4K resolution
- Video analytics on the edge
- Super 8k resolution

AIoT promises to radically transform how we interact with our homes, offices, and cities every day.

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