
DNS and the IoT: Impact on Communities, End Users, Opportunities and Challenges

Impact on End Users

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At-Large Capacity Building Working Group

Agenda

- Definition & Number of Connected Devices
- Impact on Users and Economy
- IoT Constraints
- DNS, the IoT and Users

Definition & Number of Connected Devices

The number of connected devices in 2020 is predicted to hit **50 billion.** (Source: IEEE)

By 2030, this figure is expected to jump to 125 billion.
(Source: Martech Advisor)

By 2021, 35 billion IoT devices will be installed around the world.

(Source: Security Today)



The IoT allows people and things to be connected Anytime, Anyplace with Anything and Anyone, ideally using Any path/network and Any service

Source: IEEE Communications Surveys &Tutorials

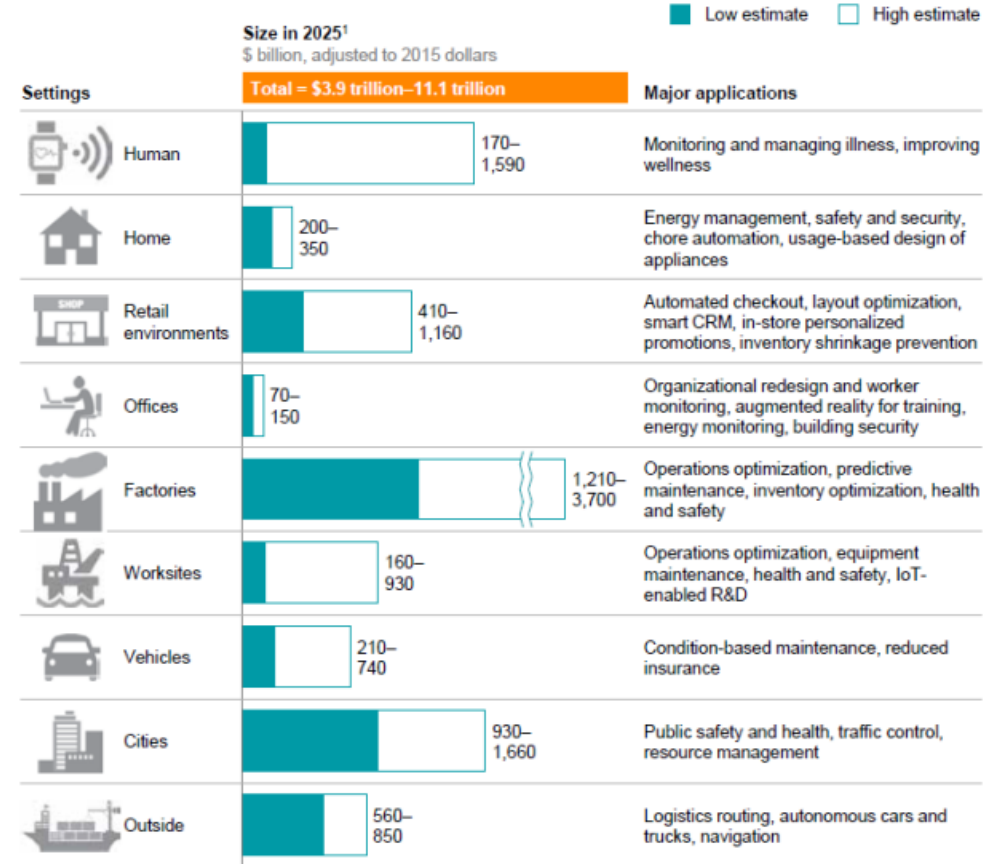
Impact on Users and Economy

Users need to balance the benefits with privacy concerns

Economic impact: \$ 150-350 billion

Users need to be aware of who they share their data with

Potential economic impact of IoT in 2025, including consumer surplus, is \$3.9 trillion to \$11.1 trillion



¹ Includes sized applications only.
NOTE: Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute analysis

Which of the following could be seen as IoT constraints

- Technology
- Interoperability
- Privacy and Confidentiality
- Security
- Intellectual Property
- Organization and Talent
- Public Policy
- All of the above

IoT Constraints

- Technology
- Interoperability
- Privacy and Confidentiality
- Security
- Intellectual Property
- Organization and Talent
- Public Policy

Security and privacy concerns surpassed costs as the primary barrier to purchasing IoT devices



Source: The trust opportunity: research from consumer international and the Internet Society

- We are evolving from a web based Internet to object based IoT
- Will the current DNS be able to support the name resolution of IoT objects?

The future
is
connected

The current DNS must become smarter to accommodate IoT applications

- Yes
- No
- Maybe
- Don't know

Questions?



Thank you!