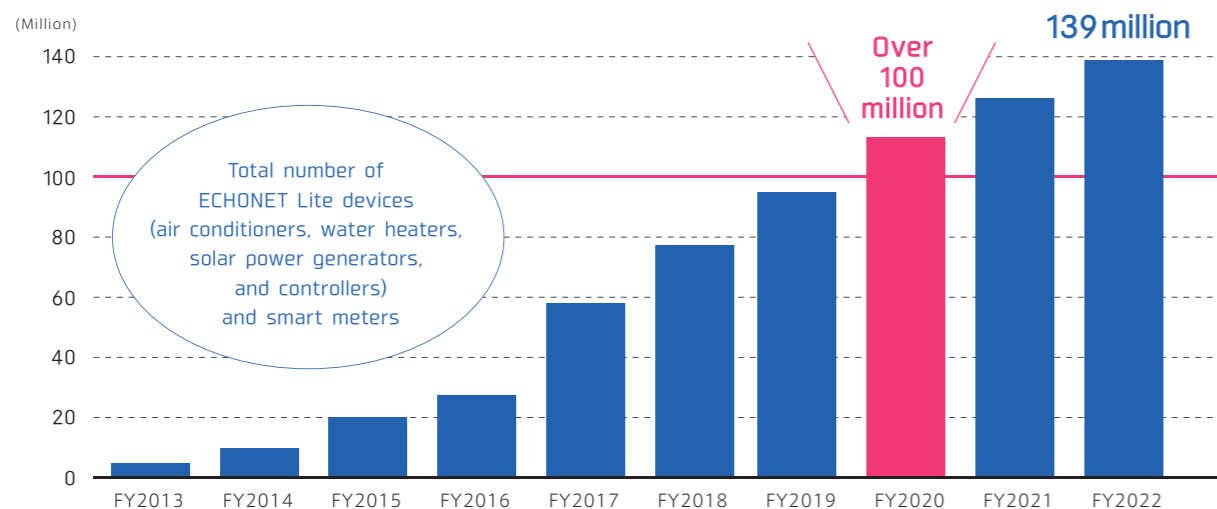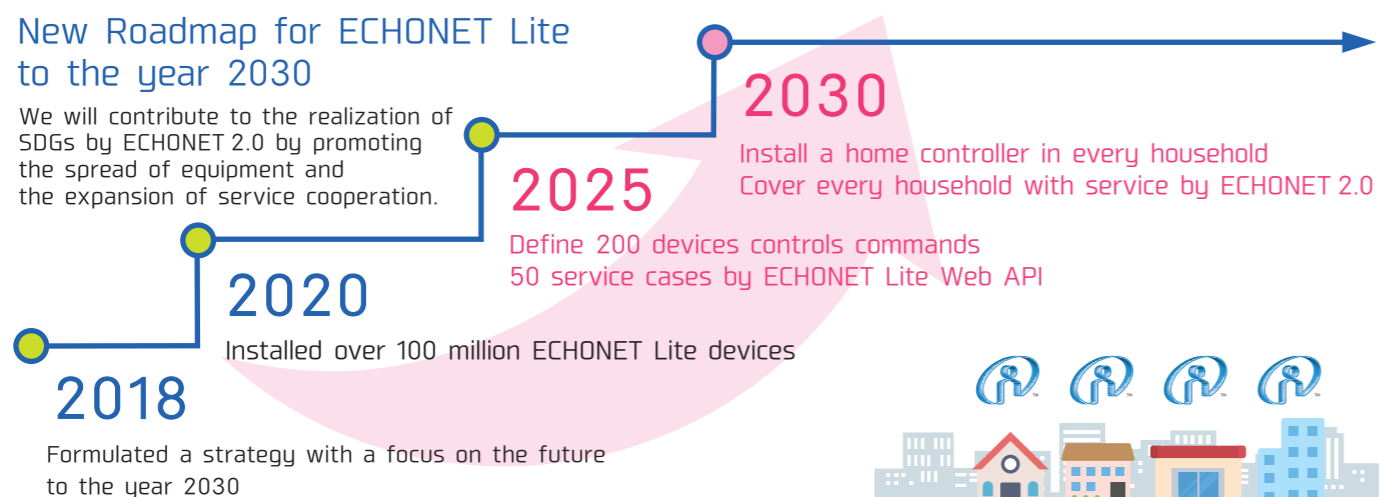# ECHONET Lite has already realized the world's largest scale of IoT environment

## Cumulative number of shipments and installations of ECHONET Lite devices

(Million)

Total number of ECHONET Lite devices (air conditioners, water heaters, solar power generators, and controllers) and smart meters

Over 100 million

139 million

140 — 120 — 100 — 80 — 60 — 40 — 20 — 0

FY2013 FY2014 FY2015 FY2016 FY2017 FY2018 FY2019 FY2020 FY2021 FY2022

Note: ECHONET Lite devices include smart meters.

## New Roadmap for ECHONET Lite to the year 2030

We will contribute to the realization of SDGs by ECHONET 2.0 by promoting the spread of equipment and the expansion of service cooperation.

### 2030
Install a home controller in every household
Cover every household with service by ECHONET 2.0

### 2025
Define 200 devices controls commands
50 service cases by ECHONET Lite Web API

### 2020
Installed over 100 million ECHONET Lite devices

### 2018
Formulated a strategy with a focus on the future to the year 2030

## Dissemination overseas

### International collaboration with standardization and training /research

ECHONET Lite Communication Middleware and Detailed Requirements for ECHONET Device objects, which both make up major parts of the ECHONET Lite protocols, were approved as international standards (ISO/IEC 14543-4-3 and IEC 62394) in 2015. The ECHONET Lite research and development centers and regional offices started operations in ASEAN countries such as Malaysia and Thailand this year.

## ECHONET Consortium

ECHONET Consortium is an organization that promotes Communication protocol "ECHONET Lite" for home appliances and housing facilities, which are essential elements of smart homes, to cooperate with each other.
We are standardizing the ECHONET Lite and promoting the spread of smart homes with support for commercialization of devices which support the ECHONET Lite standards and cooperation with related industries.
In addition to the ECHONET Lite standards, we also promote formulation of ECHONET Lite AIF specifications that regulate the behavior of devices and "ECHONET 2.0" to contribute to the realization of a prosperous and sustainable society "Society5.0" by creating new added value.
ECHONET Consortium has about 260 managing and general members, their associate members, and academic members participated from the home appliances, electricity, electronics, energy, residential, and IT industries, as well as from academic and research fields. Its managing members are Mitsubishi Electric Corporation, Panasonic Holdings Corporation, Sharp Corporation, Tokyo Electric Power Company Holdings, Inc., and Toshiba Corporation.

Contact

**ECHONET Consortium**  https://echonet.jp/english/

Shimbashi TS Bldg. 4F, 1-22-5 Nishishimbashi, Minato-ku, Tokyo 105-0003 JAPAN  Tel: 03-6205-4142  Fax: 03-6205-4143

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Communication protocol for home networks in the IoT age

# ECHONETLite

××××× ECHONET Lite ×××××

# This is

# the future of home life
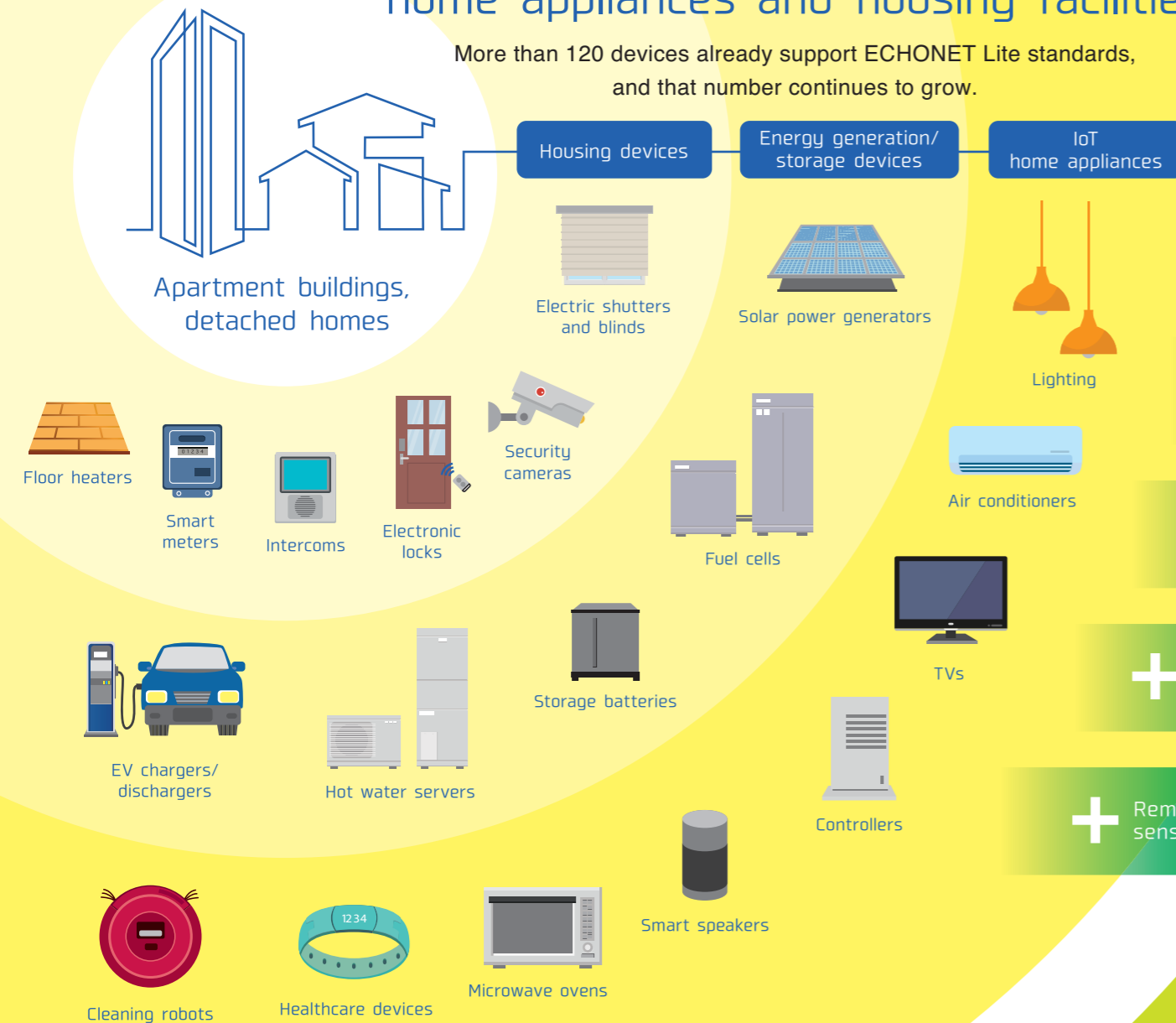
**ECHONET Consortium**

ECHONET Lite is approved as an international standard under ISO/IEC 14543-4-3 and IEC 62394.

# IoT is expanding from energy management to every part of our lives.
# With ECHONET Lite, your house becomes a next-generation IoT housing.

**ECHONETLite** ™

## Increasing the number of connected IoT home appliances and housing facilities

More than 120 devices already support ECHONET Lite standards, and that number continues to grow.

Housing devices → Energy generation/storage devices → IoT home appliances

Apartment buildings, detached homes

- Electric shutters and blinds
- Solar power generators
- Lighting
- Floor heaters
- Smart meters
- Intercoms
- Electronic locks
- Security cameras
- Air conditioners
- Fuel cells
- TVs
- EV chargers/dischargers
- Hot water servers
- Storage batteries
- Controllers
- Cleaning robots
- Healthcare devices
- Microwave ovens
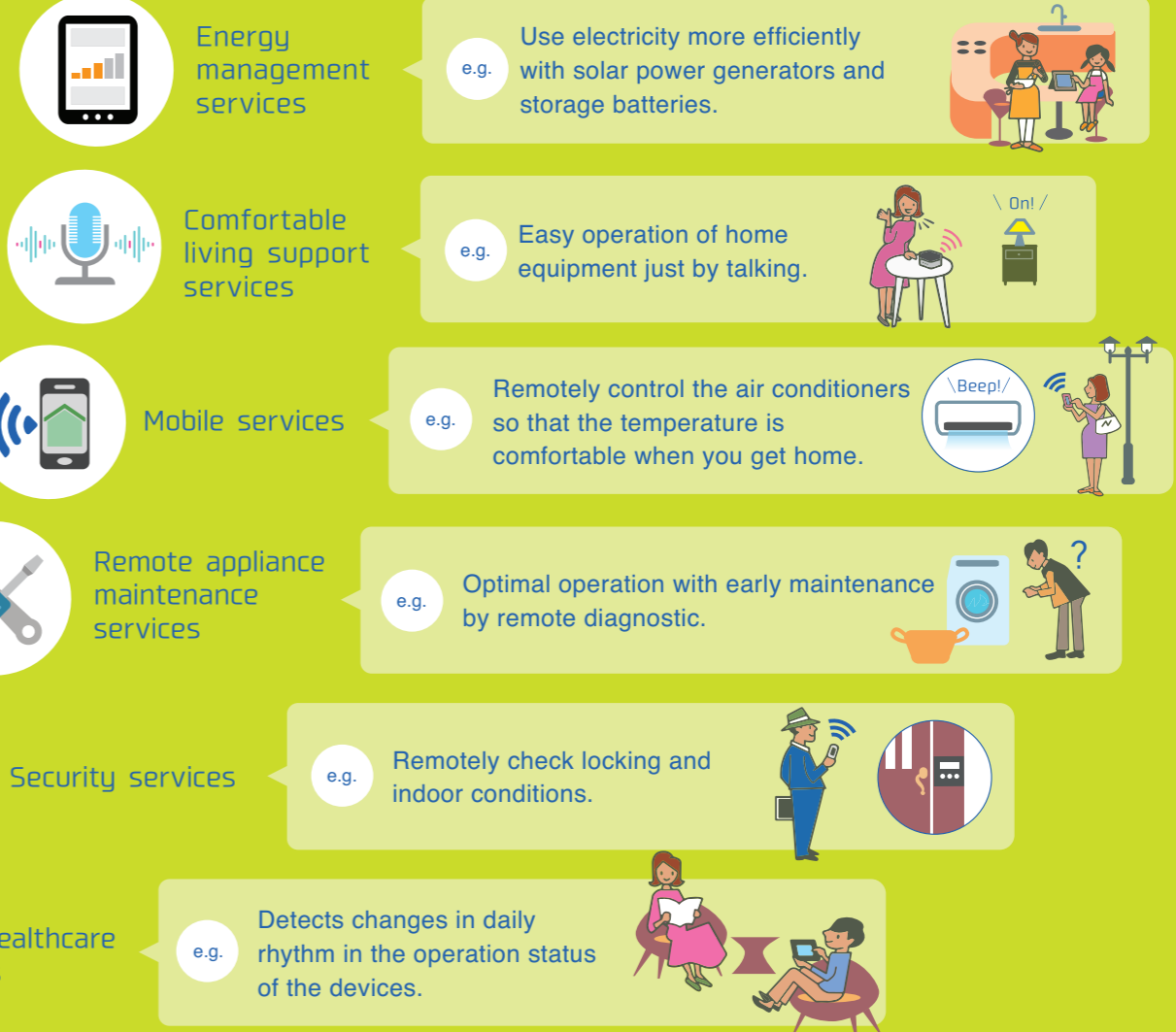- Smart speakers

- Visualization of energy usage
- Automatic or remote control of home appliances and equipment
- Security monitoring
- Remote sensing

## Expanding the lifestyles with IoT home appliances and housing facilities

Along with the expansion of lifestyles that utilize IoT home appliances and housing facilities, new business players will join and provide new services that make life more convenient and more comfortable.

**Energy management services**
e.g. Use electricity more efficiently with solar power generators and storage batteries.

**Comfortable living support services**
e.g. Easy operation of home equipment just by talking.
\ On! /

**Mobile services**
e.g. Remotely control the air conditioners so that the temperature is comfortable when you get home.
\ Beep! /

**Remote appliance maintenance services**
e.g. Optimal operation with early maintenance by remote diagnostic.

**Security services**
e.g. Remotely check locking and indoor conditions.

**Home healthcare services**
e.g. Detects changes in daily rhythm in the operation status of the devices.

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## ECHONETLite — What is it?

ECHONET Lite is a **shared language** that enables communication between IoT home appliances, housing facilities, and energy generation/storage devices provided by different manufacturers.
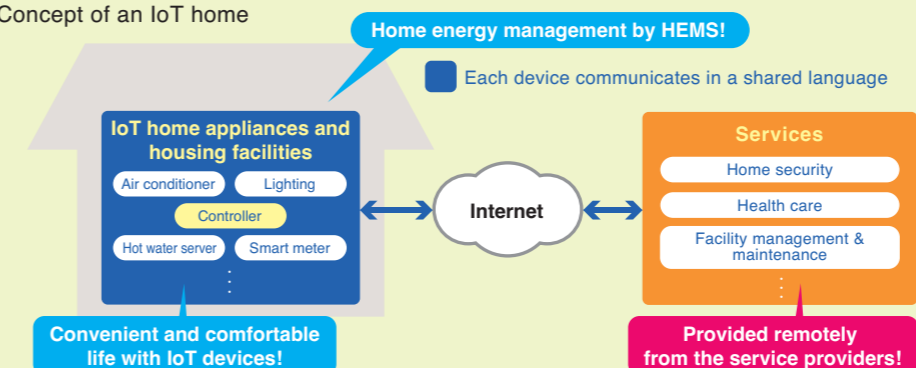
In order to control IoT home appliances, housing facilities, energy generation/storage devices of different manufacturers via the internet such as smart home that uses Home Energy Management System (HEMS), a common interface (the shared language) must be installed. The communication protocol that plays the role above is the ECHONET Lite.

ECHONET Lite is recommended as a publicity available standard interface (shared language).
★ECHONET Lite is recommended as a well-known standard interface in HEMS by The Smarthouse Standardization Committee of the Ministry Economy, Trade and Industry.
★ECHONET Lite is approved as an international standard under ISO/IEC 14543-4-3 and IEC 62934.

### Concept of an IoT home

Home energy management by HEMS!
■ Each device communicates in a shared language

**IoT home appliances and housing facilities**
- Air conditioner
- Lighting
- Controller
- Hot water server
- Smart meter

Convenient and comfortable life with IoT devices!

Internet

**Services**
- Home security
- Health care
- Facility management & maintenance

Provided remotely from the service providers!

- Multi-vendor environment is realized with common specifications
- Existing standard transmission media can be used
- Network-ready devices can be designed
- Cooperation with services on the cloud is possible