

# *Link Everything* *Think Everyone*

Active innovator in IoT technology



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# Active Innovator in IoT Technology

**Link Everything, Think Everyone.**

Grib is committed to offering values of convenience and safety to enhance people's everyday lives through core Home IoT technology for SOHO, smart building, campus, and factory.



# Korea's First Commercialized IoT Hub

Grib provided the first commercialized Z-Wave IoT Hub and devices in S.Korea.  
Core IoT device control technology enables stable seamless connection of IoT Things,  
monitoring, analysis, control and receive/send data to/from the server.

## Commercially Verified

Since the first commercial deployment in Dec. 2015 by LG U+, Grib has maintained its position as the most applied home IoT Hub in S.Korea.  
Enhanced stand-alone IoT Hub supporting Z-Wave, BLE, WiFi protocol was recently released in the market enabling independent IoT service provision and implementation.



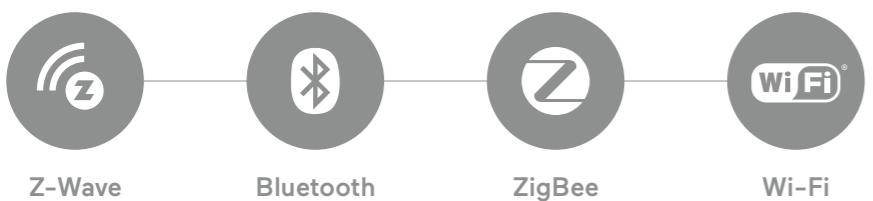
# IoT Integrated Hub, a Key of Connection

## IoT Hub (Stand-alone type)

Grib's stand-alone IoT Gateway Hub supporting Wi-Fi, BLE, Z-Wave, and ZigBee works on any network service operators and access points.

### Wider Connection Protocol

Support various communication protocol



# IoT Hub for Z-Wave Devices

## IoT Hub (Dongle type)

Control and monitor Z-Wave IoT devices,  
displaying demon and RF status in LED



### Wireless Network

Simple and easy installation with wireless network



### Service Expandability

Enjoy various IoT services with simple registration of devices



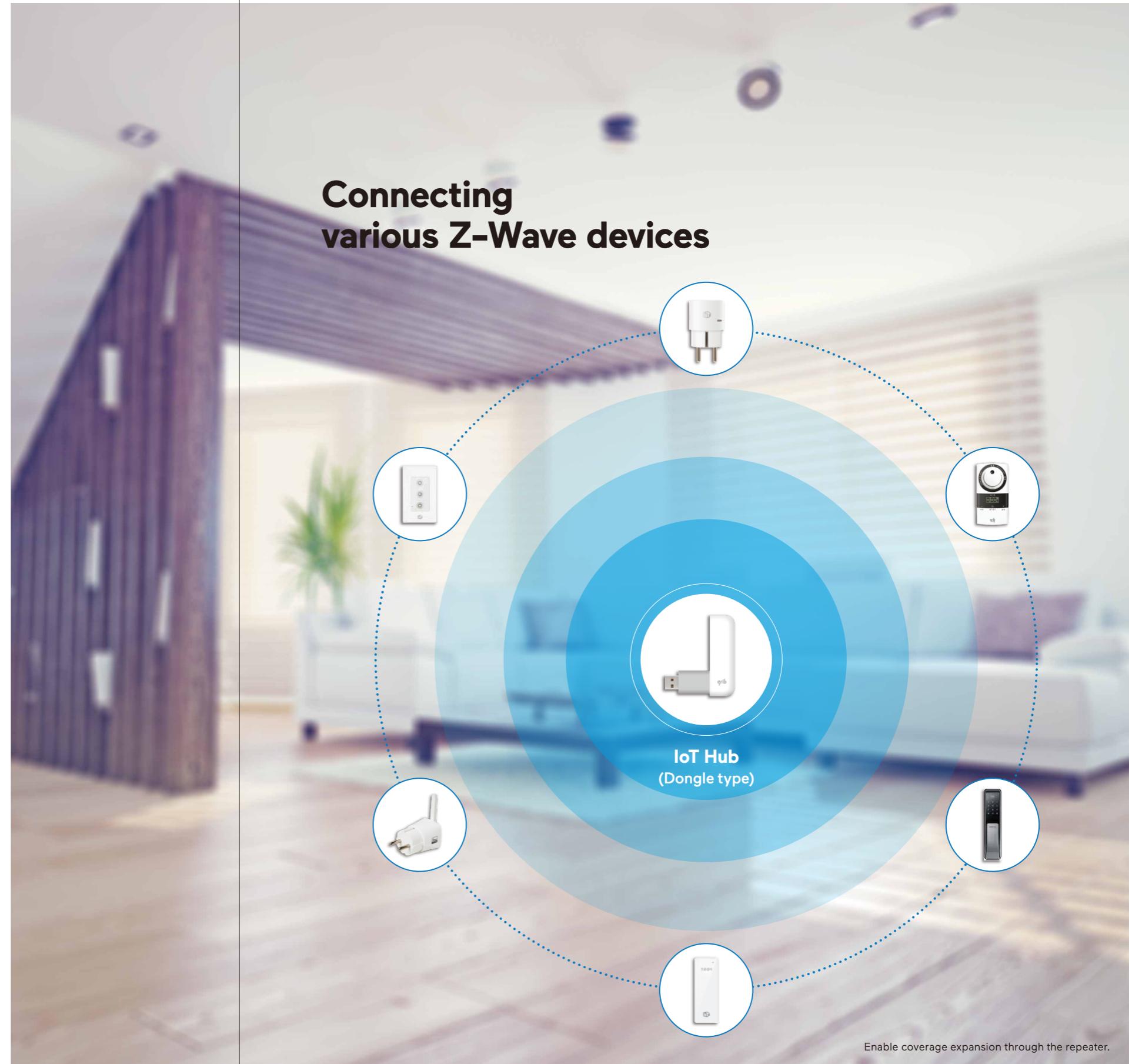
### Low Cost

Build IoT network with minimum expenditure



### Smart Control

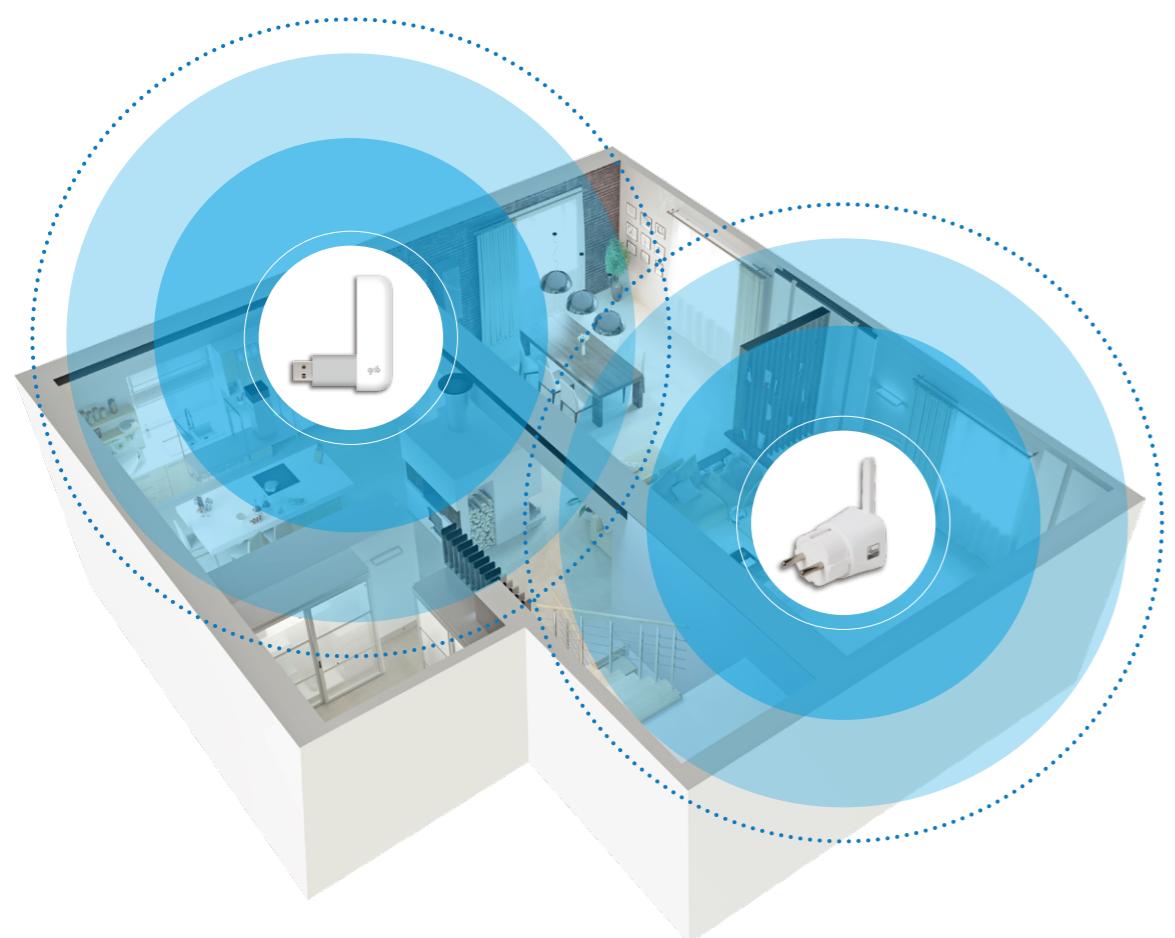
Remotely control and monitor via mobile devices anywhere, anytime



# Z-Wave Repeater for Wide Coverage

## Z-Wave Repeater

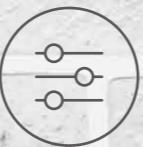
Amplify connectivity between IoT Hub and Things in a vulnerable environment by mesh network



# Safe Home

## IoT Gas Lock

Remotely control and monitor gas valve via mobile devices



### Remote Control

Control gas valve via mobile devices



### Detect Risk

Provide fire detection alert (SMS) and auto lock function



### Set Timer

Set Timer from min. 2 minutes to max. 10hrs



### Control Another House

Remotely control IoT Gas Lock for your parents



# oneM2M-based Integrated IoT Platform

## Platform@G

Provide stabilized and efficient IoT service from rich experience of commercialized solution and devices



## Easy-to-build IoT Environment

Platform@G can be applied to various IoT industries such as Home IoT, SOHO, smart building, campus, and factory.



### Standard Connection

Apply global Standard compliance with oneM2M support



### Simple Delivery

Easily build Home IoT, a small-scale IoT system



### High-level Security

Application environment specification in 128bit encryption



### Things Expansion

Provide expandability with various communication protocol support



### Variable UI / UX

Support various user environment as web, mobile, STB, and Kiosk

## Applicable to Any Service Area

This platform can be applied to various fields through flexible design by units and functions in accordance with service scenario.

# Creation of IoT Service

## Grib IoT Service

Grib provides various services through IoT Gateway Hub technology and platform.



## Various Industry Fields

Enrich people's lives and offer new values through IoT services applicable to various facilities

### Building / Residence

Enable efficient building management based on accumulated information with building management solution to secure resident's safety, security and convenience



### Transportation / Mobility

Enable intellectual parking system, vehicle management, and provision of real-time traffic information with IoT services



### Health / Lifestyle

Enable efficient management and operation of café, bookstore, camping, fitness, and etc.



### Campus

Enrich students' experience and enhance their convenience on campus with IoT technology and services



### Security

Enable risk management, fire prevention, and prompt response in emergency with IoT security services



### Environment

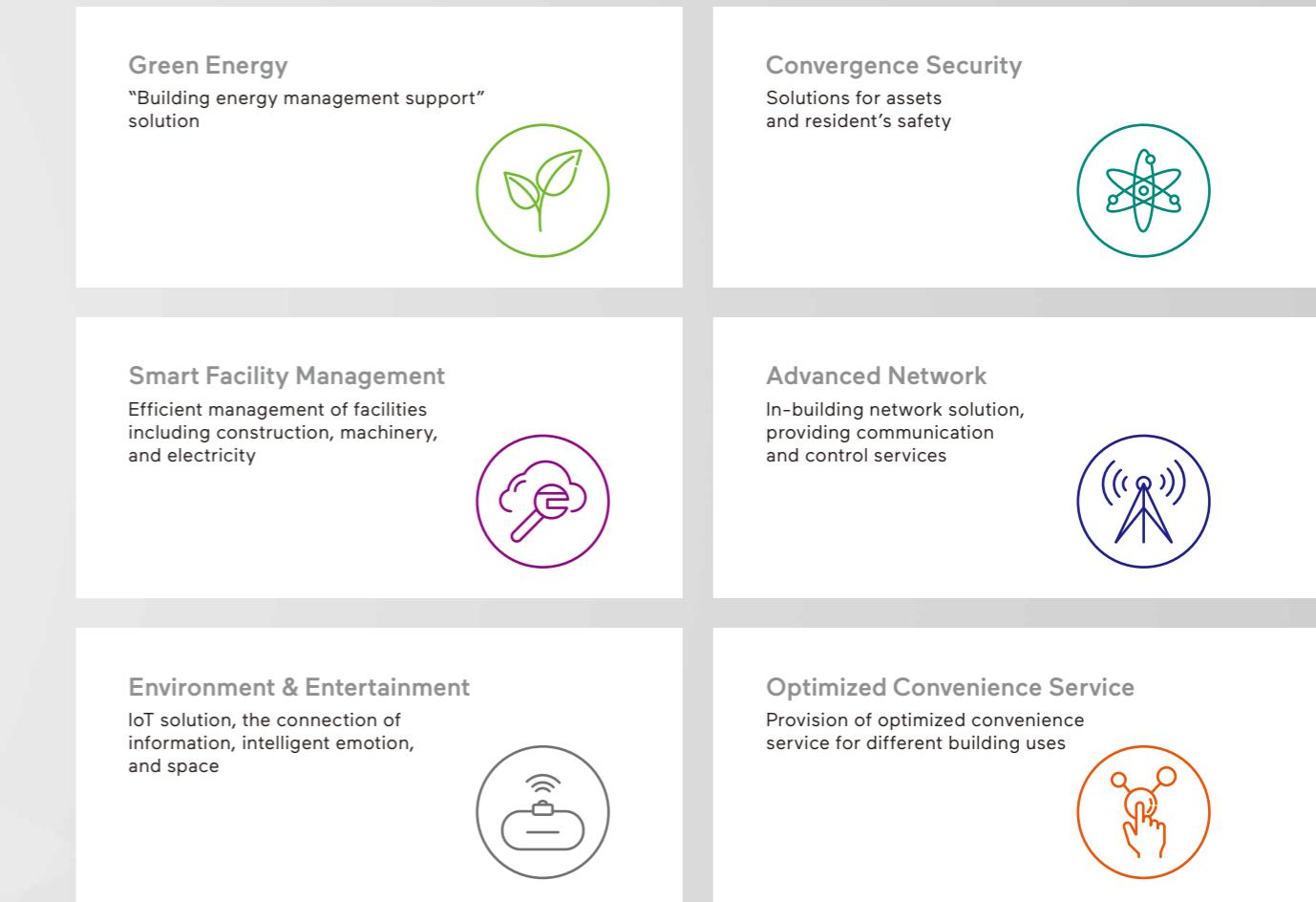
Apply IoT technology to environment management for pleasant and better environment



# Harmony of Space and Human

## Smart Building

Intelligent building system can be introduced for integrated building management, including fire system, security system, and network system to improve work efficiency and environment. Grib can provide optimizable business solutions for different building uses.



## **Solution based on Screen Virtualization through Cloud Server**

### **Cloud Streaming**

All operations are processed in the cloud streaming server and sent to the set-top box; set-top box simply receives video & image data from the server and enable visualization through the screen.



## **Grib Resource Management System**

### **GRMS**

GRMS (Grib Resource Management System) is an efficient transition solution for inter-operators or separate users using STB in cloud streaming environment and is expandable for both Platform Switch and Theme Switch.

# IoT-based Global Smart LED Lighting Platform

## Linear LED Lighting System

Establish flexible, scaleable and suitable lighting system with modular linear lighting for any type of interior space



## High Efficiency Light for Space

Enable to adjust brightness and color temperature of a partial or entire space based on customer's needs

## Design Of Lighting and Space

Form harmony of space and lighting, an element of special expression in interior design for any design concept and space plan

## Products



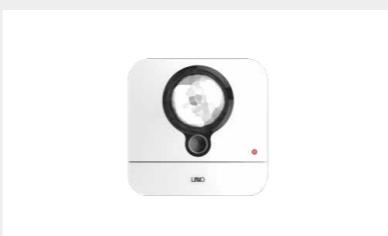
Linear lighting



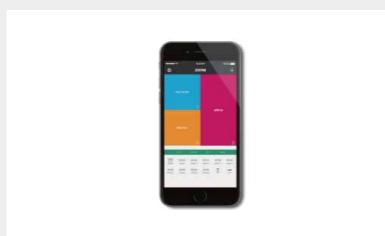
Bulb lamp



Spot, down lighting



Smart sensor



Smart device APP



Remote control

01

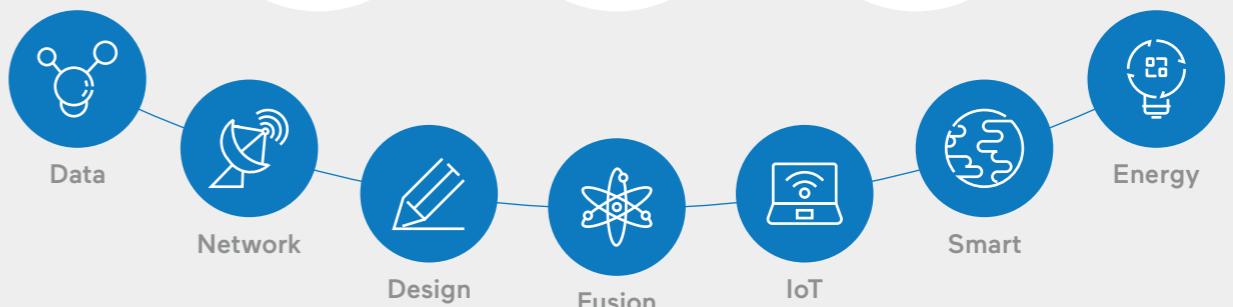
Linear/Bulb/Down LED lighting with global design and competitive price

02

Support IoT lighting ecosystem to merge LED lighting, sensor, and smart device

03

Provide various services including energy saving/lighting operation/lighting management for customers



# Fire Detection System with Sound Field Motion Sensor

## Fire Detection System

Detect the early stage of fire in various kinds of fire space and environment

In case of fire, Sound Field Security Sensor Device detects the situation and sends an alarm message to mobile device via IoT network.



## About Grib



### 2016 K-Brain Power

Selected as 2016 K-Brain Power in the Embedded Software Division (Ministry of Trade, Industry and Energy (MOTIE))



### Validated IoT Company

Advanced development of core technology as an exclusive supplier of IoT Hub to LG U+, the most subscribed IoT commercial service provider in S.Korea



### IBS Company

Advanced development for smart building platform and BEMS business

## Business Areas

### IoT Device and Platform

IoT service scenario/  
product planning & design/  
development/production/  
validation



### Cloud Streaming

Cloud streaming/VR/SI/UX  
solution development and  
implementation



## Major Patents



### Patent No. 10-1723984

Device and Method for  
Controlling Internet of Things  
Device

2017.03.31 / KR



### Patent No. 10-1683221

Apparatus for Checking Visitor  
Using Z-Wave

2016.11.30 / KR

## Major Business



### IoT Service

Smart Reservation Management Service

Develop remote control and manage platform for camping cars, managed and operated by the nationwide local government, with IoT technology



### Intelligent Buildings

IoT Integrated Platform

Advanced development for smart building platform & BEMS business



### High-tech Sensor R&D

Sound Field Motion Sensor

Promote IoT business cooperation with corporates in Europe  
with ETRI's non-blind spot sound field security sensor



### Global Advancement

Global Business Development

Secured a bridgehead to enter overseas markets: USA, Israel, UK, and China

# Grib, Takes the Lead in Interconnection of Heterogeneous IoT Devices

Grib had already commercialized its integrated IoT Hub through LG U+ in July 2015. Up until recently, Grib has been in charge of providing IoT Hub services to more than 350,000 households with nearly 10 sensing devices interoperating with each other.

Korea IT Times – Thursday, August 25th, 2016

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