



UBIHK

***Connecting a smart and
sustainable world***

From Taiwan Champion to Global Leader

Ubiik is a global IoT solutions provider with expertise in LPWAN, cellular connectivity and services to cover the multi-modality of the IoT market, including Weightless™ LPWAN and LTE technologies. Ubiik is also committed to providing vertical solutions for a variety of industries, such as utilities and energy management.



Vancouver

San Jose

Paris
Toulouse

Top 1

Vendor of Taipower AMI Project

#1

Release 15 LTE-M/NB-IoT Small Cell for Private Networks

6+

Offices in Taiwan, India, US, Japan, France and Canada

100+

Employees around the World



AMI

Advanced Metering Infrastructure (AMI) solution helps utilities transform to smart grids by providing LPWAN infrastructure, cloud data management and analysis.



Private/Hybrid LTE

World-first R15 cellular IoT small cell base station for private or hybrid LTE networks in licensed and unlicensed bands.




EMS


Providing commercial buildings with enhanced energy management software integrating PV, battery, EV and wireless communication, powered by AI algorithms.

Awards Record

2019

 IEEE & Plug and Play Industry 4.0 Startup Pitch Annual Best Start-up Award

 AWS Cloud Challenge Winner

 U.S. Plug and Play Startup Camp First Award in Hardware Tech Friday Pitch

 COMPUTEX Best Choice Award, AI IoT category

2020

 Audi Innovation Award, Gold Award Winner

2022

 Greentech Startup Challenge Award Winner of Final Run

 Taipei Prominent Enterprise Award Winner



Experts in National Electricity Grid

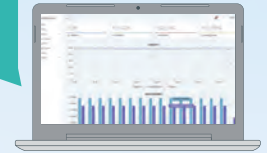
Ubiik's AMI solution helps utilities collect data from meters or field devices. This data is used to help monitor electricity, gas or water usage, as well as quality. Informed decisions based on this data can help improve grid stability and resilience. The solution can also help customers improve energy efficiency and sustainability.

We provide total AMI solutions to meet your needs at any scale.

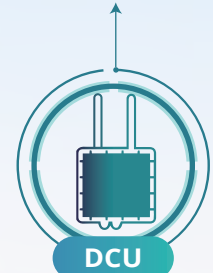
Fabien Petitgrand
CTO, Ubiik

Ubiik AMI End-to-end Solution

Currently processing and managing over 45 million meter messages per day.



Head End System



DCU



Smart Meter Communication Modules

Product Introduction

Base Station Infrastructure

Weightless™ LPWAN has been chosen by the most modern utilities as their private wireless network, thanks to its high capacity, bi-directionality and abilities in dense environments, allowing a single data concentrator unit (DCU) to support up to 1,000 devices.



Head End System

The Head End System (HES) provides portable and scalable microservices aimed at reliable processing and packaging of up-to-date and timely information for customers to understand their meter data and make impactful business decisions.

Smart Meter Communication Module

Ubiik is experienced in meeting wireless integration and metering requirements for AMI, following standards such as IEC (Europe), ANSI (America), CNS (Taiwan), and JIS (Japan).



Ubiik's AMI in Taiwan

In 2017, Ubiik participated in the Taipower AMI (Advanced Metering Infrastructure) project through its innovative Weightless™ Low Power Wide Area (LPWAN) communication technology. In 2018, we were selected as a qualified vendor for the AMI communication unit of Taipower smart meters project, and have been working with Taipower since 2018. In the past three years, the cumulative tender amount reached NT\$1.26 billion.

1,000,000+

Smart meters under contract

6,000,000+

Smart meters deployment by 2030



AMI Milestones



2018

Won US\$8Mn AMI tender from Taipower to deploy network for 75,500 meters, by leveraging Weightless™, NB-IoT and LTE Cat-1



2019

Won US\$16Mn AMI tender from Taipower to deploy network for 265,000 meters. Completed delivery of 11,000 smart electricity meters to Japanese customer.



2020

Completed 200,000+ smart meter network deployment in Taiwan and won tender from Taipower to deploy integrated AMI network for electricity, water, and gas meters. We won US\$17Mn AMI tender from Taipower to deploy network for 380,000 meters



2021

Weightless™ ePaper products shipped to Germany semiconductor fabrication plant customer. We received PO from other AMI peers in Taiwan, stepped into energy monitoring system, and completed US\$5Mn Series A led by Taiwania Capital

Weightless™ Products



Indoor
Base Station



Outdoor
Base Station



End Device Module



Evaluation Board

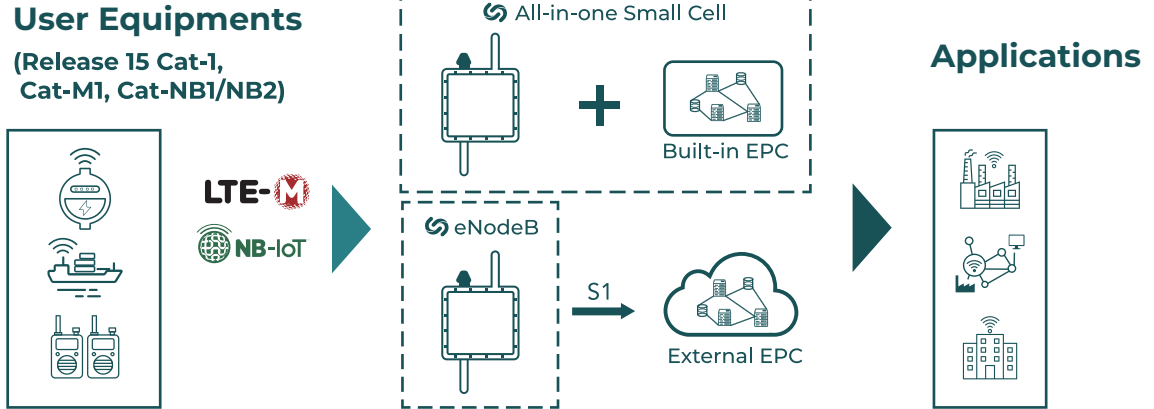


***go* RAN**

Private LTE-M/NB-IoT Networks for Utilities and IoT

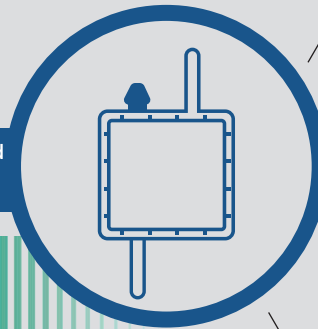


Ubiik Private LTE / Hybrid Network Solutions



Supporting Frequency Bands

Band 87	Band 31/72	Band 28	Band 24	Band 20	Band 8	Band 3	Band 2
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LTE-M

LTE-M is typically running on a 1.4MHz spectrum. It can be used for certain Machine-to-Machine(M2M) applications that require higher data throughput and lower latency.

NB-IoT

NB-IoT is deployed over mobile networks which is especially suited for indoor coverage, low cost, long battery life, and large number of stationary devices.

Competitive Capabilities of Ubiik goRAN

Features of goRAN



Low cost to cover wide territory



<40W power consumption (PoE++ support)



Ease of installation



Legacy Cat-1 and Cat-4 UEs support



Support sub-GHz, sweet spot for utility/industrial IoT



eNodeB with built-in Evolved Packet Core (EPC)



EPC/HSS can be provided externally via S1/S6a interfaces (Ethernet/LTE backhaul)

Ubiik leads the World's first R15 LTE-M/NB-IoT small cell

With 27-30 dBm dedicated for narrowband applications. The difference between Ubiik small cells and macro base stations are not significant. goRAN can support concurrent RRC connections similar to macro stations.



Scenarios of LTE Network

goRAN is the only private standalone LTE-M/NB-IoT eNB+EPC available in the market; it also works as eNB interfaced to external EPC for private extension of public networks and vice versa.

01

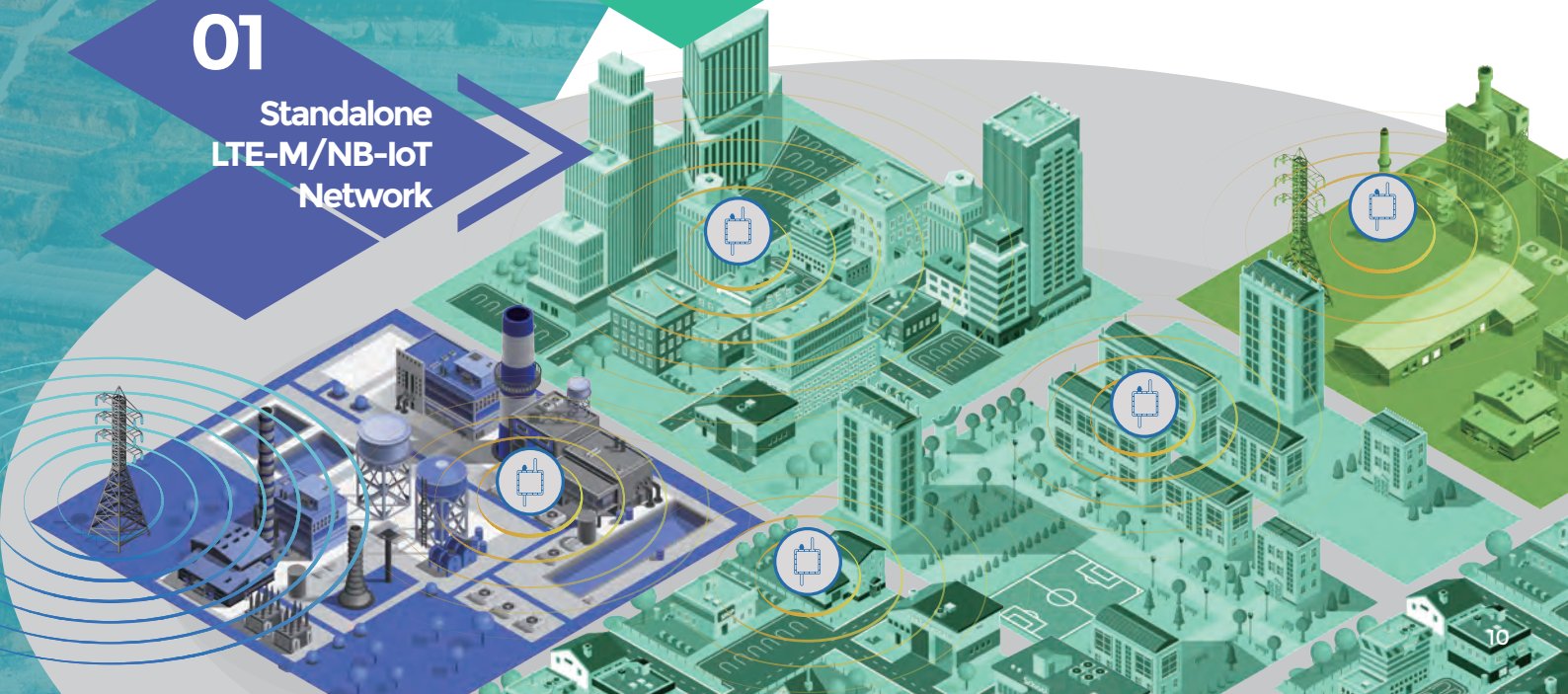
Standalone
LTE-M/NB-IoT
Network

02

LTE Network
Extension

03

Hybrid Network
Roaming



Ubiik Nanogrid Management Solution

Ubiik's EMS cloud platform is designed to help enterprises manage the commercial value of nanogrids. It can help manufacturers conduct energy management, master electricity consumption information, improve electricity consumption habits, reduce electricity consumption costs and electricity consumption, and do their best to achieve sustainable energy development.

Benefits of Ubiik EMS



Go green and save electricity bills

Ubiik smart controller and SaaS platform help consumers maximize the self-consumption of renewable sources. When consumer has to use grid power, it also minimizes the electricity bill and demand charge.



Real-time monitoring of power usage and flows

Ubiik smart controller and SaaS platform enable the remote and real-time monitoring of how power flows between different components within a nanogrid system.



Interface with 3rd-party VPP platforms

Ubiik smart controller and SaaS platform connect the DERs on the consumer's side to the wholesale market to trade energy, capacity, and provide ancillary services to generate additional revenues for consumers.



Integrated with long-range wireless technology

Integrated with sub-GHz LPWAN wireless technology, our solution supports the communication with industry-standard meters, inverters and batteries. Going wireless can significantly save the capital cost of wiring communication lines in large sites, such as factories and schools.



Reach Net-zero

Maximizing the self-consumption of solar by storing excess solar during the day and discharging it back at night. We also help customers increase their energy self-sufficient rate to reach net-zero.

Ubiik Smart Controller & Cloud EMS



Day Time

Discharge to supply demand when price is high (on-peak)



Noon

Charge to store excess solar



Evening

Discharge to shave peak to avoid demand charge, and prepare for coming peak shave



Night Time

Charge when electricity price is low (off-peak)



Backup Power

Automatically switch to solar or battery to provide backup power during outages

Join us for a Green Revolution



**& create new
possibilities together!**

Ubiik is a member of



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