

## FUJITSU Wireless Solutions

*"In the constantly evolving and growing IoT market, customers are looking for upgradable solutions instead of just hardware. This is exactly what we are bringing to the market,"*

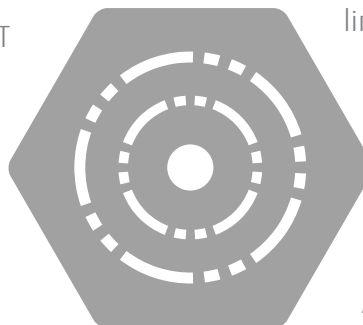
**Dennis van Doorn**  
Marketing Manager Wireless Solutions

### What's Next for Sensors?

Sensors need to communicate the data they measure, for monitoring purposes and to send alarms when levels are outside norms or at dangerous levels. Networks of smart sensors in the Internet of Things adds intelligence, feedback and control to traditional installations.

Combining a sensor, RF chip, battery and IoT connectivity software enhances a broad range of applications:

- **Environmental monitoring** – linking temperature, humidity and air quality sensors together provides real-time visibility of environmental conditions to optimise resource usage
- **Industrial safety** – smart gas, temperature, dust and smoke sensors can warn of explosions, fire hazards and breathing problems, whilst vibration and pressure sensors warns of potential problems with plant and machinery. The start of Predictive maintenance
- **Logistics** – tagging items with temperature and vibration sensors alerts managers to cool-chain issues and possible damage to goods in transit



### Challenges

Traditional sensor networks are based on wired installations which are not always easy and very often become costly and time consuming roll outs. Also, wireless communication is already used, but the connection can be unreliable in challenging RF environments when it is a peer-to-peer connection. And combining different sensors in one network is difficult. Despite the limited solutions available, the cost and size considerations are barriers to scaling conventional installations up to thousands or even millions of distributed sensors.

### FUJITSU's IoT Connectivity Solutions

A de-centralized wireless communication protocol allows IoT sensors to make all decisions locally and co-operatively. This enables the most reliable, optimized, scalable and simple to use connectivity for devices. Adding over-the-air (OTA) update capability extends lifetime for hardware, additionally improving security and lowering total cost of ownership.

Smart sensors networks allow deployment in locations where wired solutions are simply impossible, and hard to access for maintenance. IoT connectivity is easily the best fit when discussing scalability up to millions of sensors, with high density environments and ideal when the operation requires a battery powered network.



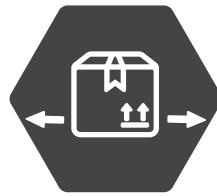
## Applications

Fujitsu Components IoT Connectivity Solutions are developed for professional IoT applications, no matter the scale. Applications include Sensors, Asset Management, Smart Metering and Lighting, all of which have very diverse requirements on range, throughput, latency and energy consumption. The solution provides flexibility, fit-for-purpose and, if needed, customization on all these parameters and the hardware too.



### Sensors

For a reliable connection with real-time visibility in a highly scalable network. Control and optimize environmental conditions intelligently.



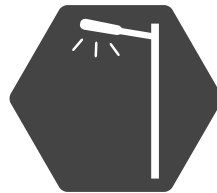
### Asset Management

For tracking the locations of various assets. Roll cages, boxes and crates in distributions centers, beds and instruments in hospitals and other valuable corporate assets.



### Smart Metering

For connecting an unlimited number of metering points together in a highly scalable network.



### Lighting

For intelligent lighting of Smart City or Smart Buildings enabled with Fujitsu's IoT Connectivity Solutions.

#### Copyright

All trademarks or registered trademarks are the property of their respective owners. Fujitsu Components Europe B.V. or its affiliates do not warrant that the content of this leaflet is error free. In a continuing effort to improve our products Fujitsu Components Europe B.V. or its affiliates reserve the right to make any changes without prior notice. Copyright ©2018

The contents, data and information in this product guide are provided by Fujitsu Components Europe B.V. as a service only to its user and only for general information purposes. The use of the contents, data and information provided in this product guide is at the users' own risk. Fujitsu has assembled this product guide with care and will endeavor to keep the contents, data and information correct, accurate, comprehensive, complete and up to date. Fujitsu Components Europe B.V. and affiliated companies do however not accept any responsibility or liability on their behalf, nor on behalf of its employees, for any loss or damage, direct, indirect or consequential, with respect to this product guide, its contents, data, and information and related graphics and the correctness, reliability, accuracy, comprehensiveness, usefulness, availability and completeness thereof. Nor do Fujitsu Components Europe B.V. and affiliated companies accept on their behalf, nor on behalf of its employees, any responsibility or liability for any representation or warrant of any kind, express or implied, including warranties of any kind for merchantability or fitness for particular use, with respect to this product guide, its contents, data, information and related graphics and the correctness, reliability, accuracy, comprehensiveness, usefulness, availability and completeness thereof. All rights reserved. Revised January 23<sup>rd</sup>, 2018

#### Contact

**Europe**  
FUJITSU COMPONENTS EUROPE B.V.  
Diamantlaan 25  
2132 WV Hoofddorp  
Netherlands

Tel: (31-23) 5560910  
Fax: (31-23) 5560950

Email: [info@fceu.fujitsu.com](mailto:info@fceu.fujitsu.com)  
Web: [www.fujitsu.com/uk/components](http://www.fujitsu.com/uk/components)

In cooperation with:



Web: [www.wirepas.com](http://www.wirepas.com)