A look back at 2016 and looking forward to 2017

2016 has been an exciting year for Decawave! One of the main highlights of the year was at the Consumer Electronics Show (CES) where our technology was present in multiple products and demonstrations including the CES opening Keynote. Decawave’s technology – thanks to our partner Quantitec – was also present at Mobile World Congress on Nokia’s booth and at Bosch Connected World where Decawave technology was featured as the key element for future real-time location systems.

On the business side, Decawave crossed the 1 million DW1000 chips shipped in April and will finish the year over 2.5 million. This is a promising result and the trend for 2017 looks even better with the first car Decawave enabled reaching the market as well as several high profile consumer products.

To support this growth, we have grown our staff by 10 this year and have plans to hire 30 more for 2017 expanding our presence in the USA and China – close from our customers – as well as in Dublin for the development of our next generation chip. If you are interested in joining us, watch out our job openings on our careers section.

Location is the Key

The advent of IOT has brought many challenges. One of these which is of high importance is security. In the past, in order to compromise the security of a system, there needed to be a physical access to devices making it relatively easy to keep a system secure.

Since the adoption of wireless networks and IOT, remote hacking of objects has become a serious concern. Many everyday things are now fully connected and there is no single week without an article reporting malicious attacks, from cars to medical equipment to baby monitors and thermostats.

This is quite alarming as the impact ranges from simple inconvenience to financial impact up to potentially fatal consequences.

In order to address issues like this, an extra layer of security must be added. Decawave introduced the concept of location based security during the Global Semiconductor Alliance forum on IOT security that took place in Munich on November 8th. Indeed, Decawave’s technology can play an important role in securing the IOT as accurate and reliable location can be used as a new credential to build more secure data communications.
The secure bubble ensures that the communication between 2 objects is denied if the distance between them goes beyond a pre-defined threshold. This is shown to be the case when it comes to keyless car entry systems. The person with the key must be within a certain distance before the car will open while the accurate and reliable distance measurement makes the communication relay attack proof. It is also possible to use the location of objects – X, Y, Z - as a password when the two objects communicate. As an example, location may determine whether an object – laptop, phone… is allowed to access a WiFi access point building virtual walls to wireless networks.

ABI Research forecasts a substantial growth for UWB Technology

The market intelligence company, ABI Research is predicting significant growth for UWB technology. In a report titled “Next Generation Asset Tracking Technologies, Opportunities, and Revenues”, ABI forecasts that there will be huge opportunity for high-accuracy and low-cost UWB technology on a market where total RTLS / ASSET tracking revenues are expected to reach $14.17 billion by 2021. While the need for high precision technologies is nothing new, the big change is now happening as start-ups invent ways to cost effectively implement the technology without compromising on performance. Not only will UWB disrupt the existing market, it will open lots of new opportunities around compliance, fulfilment and inventory management.

According to ABI Research, Decawave and its partners are the biggest influencers in the UWB market.

Rohde&Schwarz demonstrates a universal solution for testing vehicle keys through UWB

Modern vehicle key systems such as remote keyless entry and passive entry use a variety of wireless communication standards. In the past, both LF frequencies and UHF frequencies, as well as a magnetic compass system that works in three spatial axes, were used to locate the key in or near the vehicle.

Using UWB radio, the latest generation of key systems only needs a single wireless standard in the non-licence frequency range. TOF measurement prevents relay attacks which are used to steal vehicles. The TOF also makes it possible to determine the location of the key around and in the car.

Rohde & Schwarz demonstrated at Electronica 2016 a universal solution for testing vehicle keyless entry systems based on UWB. The testing system can be used to test at the printed board and device level.

Zoom on Decawave customers: TRX, Zigpos and Pozyx

TRX Systems, developer of NEON® location solutions, announced that the NEON Personnel Tracker solution is now available with an ultra-wideband option that enables enhanced ranging and higher accuracy positioning inside buildings and in other GPS-denied environments. Unlike existing UWB solutions, NEON combines inertial, mapping, and UWB technology to deliver a fused, high accuracy solution with limited or no infrastructure. NEON Personnel Tracker delivers indoor and outdoor location improving efficiency, command effectiveness and safety for security, public safety and industrial applications. Personnel Tracker provides seamless 3D positioning data as well as real-time and after-action 3D visualisation of individuals and teams in a solution that is rapid to deploy and easy to use.
Zigpos is an innovative company which explores wireless sensor networks for a diverse internet of things base M2M standard. Their products are optimised for energy efficiency allowing battery operated infrastructure hence reducing the deployment costs. Due to its modular approach, its well-designed user interfaces and easy handling, the dedicated ZigPOS systems solutions can be applied to in a variety of application areas such as the medical devices, manufacturing, logistics and smart buildings.

Pozyx is an RTLS company who has developed an Arduino compatible positioning platform to provide centimetre accuracy positioning and motion information for both indoor and outdoor positioning. It is the first affordable and easy to use hardware solution to provide better accuracy. Started as part of a Kickstarter campaign, Pozyx has already shipped more than 3000 systems to more than 400 customers worldwide in applications ranging from retail to logistics, sports, robots…

CES 2017

If you are exhibiting or simply planning to visit and want to meet up then please contact our Vice President of Marketing, Mickael Viot

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