

## PRESS RELEASE

# Extended API supports *swarm* location services

***Swarm* bee LE is the only wireless module for both collaborative and fixed real-time location with concurrent communication.**

Moscow (Russia), April 24, 2015 – nanotron, the global leader in *embedded location platforms*, announces today significant extensions to its *swarm* API.

The new *swarm* API version 2.1 directly supports the ability to extract precise individual positions from an entirely mobile swarm of radio devices in real-time. It allows users for the first time to write their own location engine based on time of flight ranging which is also known as *collaborative location*.

For machine to machine (M2M) applications the new API version now provides both text-based and binary host interface formats, extended control of general purpose I/O pins over the air and an air interface extension for remote configuration and management of the *swarm* bee LE module.

Dr. Thomas Foerste, Vice President Sales and Marketing of nanotron, points out that “customers want to further cost-reduce and simplify how location-awareness can be utilized and leveraged. Hence this has been the driver for a very much enhanced API.” Reflecting on targeted applications he adds “Auto-ID solutions and location-awareness go hand in hand to improve safety in industrial environments while increasing productivity at the same time”.

*Swarm* bee LE radio modules together with the new *swarm* API create the ideal platform for tags and location-aware wireless sensors. By using both products customers obtain all the necessary functionality for a stand-alone solution. If required extra application intelligence might be added through a host controller deployed along with the *swarm* bee LE module. “API v2.1 enhancements facilitate customers to very rapidly use the *swarm* bee LE platform to develop their own customized products with any form factor and with any required functionality” said Thomas Foerste.

Nanotron’s *swarm* products pave the way for exploring swarm intelligence to increase safety and productivity.

Caption: *Swarm* bee LE radio modules together with the new *swarm* API v2.1 create the ideal platform for tags and location-aware wireless sensors – stand-alone or with host controller.



## About the *swarm* product family

*Swarm* bee LE is an autonomous *swarm* radio module with very low energy (LE) consumption. Nanotron utilizes its proven *Chirp* radio technology for this device. *Chirp* radios provide robust and reliable radio links required in industrial applications. Nanotron's patented SDS-TWR ranging method allows for concurrent communication and positioning without infrastructure. The new *swarm* bee LE device combines accurate and precise location information with 3D acceleration sensing in a low-cost wireless module. The module supports collaborative location required for collision avoidance solutions (CAS) and high-throughput positioning needed for tracking.

## About nanotron Technologies

Today nanotron's *embedded location platform* delivers location-awareness for safety and productivity solutions across industrial and consumer markets. The platform consists of chips, modules and software that enable precise real-time positioning and concurrent wireless communication. The ubiquitous proliferation of interoperable location platforms is creating the location-aware Internet of Things.

### Press contact:

Jingjing Ding  
Alt-Moabit 60  
D-10555 Berlin  
T +49 30 3999540  
[info@nanotron.com](mailto:info@nanotron.com)