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# At the helm of a new revolution, the Loc-Ex<sup>®</sup> 01 - BLE Beacon

Mobile devices have been bringing forth driving progress to many areas of the industry, enabling new ways of working and helping companies innovate by embracing enterprise mobility even in potentially dangerous work environments. However, to be able to remain competitive and reduce operating

costs, there is a continuous need to find new routes to innovation. Beacon technology has the potential, for many companies in hazardous areas, to massively improve the way in which they operate, enforce security, provide safety and manage assets.



Following ecom's roots and decades of experience as the world's first manufacturer and market leader for Zone 1 smartphones and tablets, ecom is launching the new Loc-Ex<sup>®</sup> 01 - BLE Beacon, available for hazardous areas ATEX / IECEx Zone 1 (Loc-Ex 01) and for Non-Ex areas (Loc 01 HC & Loc 01 SC).

# Improving efficiencies with beacon technology

BLE Beacons are small radio beacons that use Bluetooth Low Energy signals at periodic intervals to provide proximity awareness, whether a device has mobile connectivity or not. The Bluetooth 4.0 standard makes the beacons compatible with currently popular as well as hazardous area explosion-proof tablets and smartphones like the world's only Zone 1/21 and Division 1 certified tablet, the ecom Tab-Ex<sup>®</sup> 01, and the world's first intrinsically safe Android LTE/4G Smartphone, the Smart-Ex<sup>®</sup> 01.

The Loc-Ex<sup>®</sup> 01 - BLE Beacon can be recognized by such devices over a distance of up to 200 meters outdoors and up to 30 meters inside buildings. The beacon signals can be evaluated by the mobile device via individual applications and, in this way, interact with the user or other programs. However, it's in the understanding and application of technology, like BLE beacons, that pave the way for companies, firstly, to improve efficiencies by enhancing data accuracy and quality, and secondly, to achieve more effective work and decision making processes by inducing actions, content, messaging, and workflow tools.

## Real-use benefits inside and outside the Ex-hazardous area

When it comes to deploying beacons, individual applications and operational setups are essential in order to provide real-use benefits to companies and workers in hazardous areas around the world. The Loc-Ex<sup>®</sup> 01 - BLE Beacons can be mounted directly on a suitable surface or easily adapted on the optional available mounting plate, which also facilitates the battery exchange of the beacons. Due to



their UV-resistant housing material the beacons can be used both, indoors and outdoors – delivering contextual information to users, based on their exact location.

For example, when a mobile worker is approaching an asset, specific notes about that asset – based on who he is and what he needs – can be brought up via individual applications on the screen of the tablet or smartphone, without having to manually navigate to the right content. This would then prompt the right workflow or data that



helps the mobile worker to do his job and navigate around the hazardous area, avoiding unnecessary detours or tagged danger zones. Furthermore it is also possible to change important Loc-Ex<sup>®</sup> 01 operating parameters "over the air" to adapt quickly to any given situation on site.

### BLE Beacons help to drive business intelligence

Loc-Ex<sup>®</sup> 01 - BLE Beacons bring the ability to augment digital and physical data into a single, unified business intelligence unit to hazardous areas. They provide a low cost, basically maintenance free (battery exchange by up to five years) way to connect assets to the Internet to gather data from them.

With a single access point, the beacons can deliver information back to companies, to quickly identify potential issues or help improve workflows, enabling engineers to cut down on time spent at the end of each day on administrative tasks, significantly increasing wrench-time.

Loc-Ex<sup>®</sup> 01 - BLE Beacons are all about gaining insights to operations and asset information, such as log-in data, average dwell times, number of engagements, temperature measurement and other metrics that companies have come to look for from the digitization of the industry. An open firmware also allows an individual BLE profile development.

### Augment traditional access control systems

Beacons can also augment traditional access control systems and can make timeconsuming registration processes redundant. They provide a secure physical access and guard control system by recognising a user's device when he arrives at a specific location and capture data about the individual to allow or deny access.

Additionaly, by using BLE Beacons in combination with explosion-proof tablets or



smartphones, workers can be automatically logged in and provided with plant schematics and



diagrams, pre-loaded on each device as soon as they are near a site. This enables visitors who are otherwise unfamiliar with a site to find exactly what they need, while significantly cutting down on time lost.

# Upgrading workforce safety

Reducing the risk of operations is essential for any company involved in hazardous area operations. Taking advantage of the latest technology advances, the Loc-Ex® 01 - BLE Beacons in combination with the Smart-Ex® 01 and Tab-Ex® 01 – based on the Samsung GALAXY Tab Active – help to simplify and streamline the way mobile workers operate and interact with each other, their remote experts, and their backend systems.

Having a device that is capable of broadcasting sensor data provides a huge upgrade for workforce safety, giving mobile workers piece of mind that if any accident were to occur that they are registered, and can be located and retrieved the fastest way possible via Lone Worker Protection (App Solution). This significantly reduces the workers exposure to risks, improving the overall safety of operations.

# Loc-Ex® 01 - BLE Beacons are part of the Mobile Worker Ecosystem

When it comes to deploying beacons, there are some key benefits for companies and mobile workers, enabling higher levels of safety, efficiency and productivity within hazardous industries today. ecom has a central role in helping to connect assets, spaces and locations via its distinguishing Mobile Worker Ecosystem.

The Mobile Worker framework provides companies with a comprehensive, flexible and integrated wireless ecosystem built around rugged and explosion-proof mobile computers (tablets, smart phones, PDAs), wireless peripheral devices and smart software applications as well as specialized services and support. Accordingly, ecom enables new levels of collaboration together with huge improvements to data integrity and workflow and asset-management by providing the right information or delivering the right tools into the hands of engineers and mobile workers in hazardous areas.

For more information, please visit ecom's website: www.ecom-ex.com



### About ecom

ecom instruments is a leading global provider of integrated solutions and mobile computing and communication devices for use in potentially hazardous areas as found in the chemical, petrochemical, pharmaceutical, oil and gas, mining, power generation, and food and beverage industries.

For 30 years, ecom has set the standards and gathered comprehensive expertise in explosion protection for daily use in hazardous industrial areas across the globe.

In its four core disciplines of communication, mobile computing, portable lighting and measurement/calibration, ecom instruments offers reliable intrinsically-safe and explosion-proof products, wireless peripheral devices, and smart software applications – all backed up with worldwide assistance from service centers in Germany, USA, UAE and Singapore and from ecom subsidiary offices to reduce your risk.

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