

# e-LBS:

## Unleashing the next generation of location based services

Location based services have changed the world. They have enabled us to interact with our surroundings in ways unimaginable just two decades ago. Our phones can tell us things about our surroundings that we would never have thought to ask. But anyone who has ever had to tell an uber driver how to find their location knows that location based services are not as accurate as they can be, or as accurate as they need to be.

**It's time for that to change.**

e-LBS is not a complicated idea; in fact, it is breathtakingly simple. By empowering our devices to locate themselves in relation to each other, we can enhance accuracy in three dimensions, making **e-LBS** accurate to under a meter. **e-LBS** is a software solution – it requires no new hardware, no massive overhaul of devices. It's a simple idea - and its potential is limitless.

e-LBS is able to provide accurate positional locations in 3 dimensions - which can meet current FCC positional requirements for inbuilding. **e-LBS** improves the location of the device with GPS and especially in GPS stressed environments where GPS signals may be degraded or not available.

### **Precision. Accuracy. Simplicity.** In three dimensions.

e-LBS is precise, accurate, and simple. It provides a degree of accuracy that was previously impossible without a strong GPS signal and ideal conditions. **e-LBS** uses a patented algorithm for location finding combined with the ability to create a mesh network among local devices to triangulate from. Unlike traditional triangulation, **e-LBS** is not dependent on other devices like beacons, and has the ability to improve positional awareness using only itself as the reference.

**e-LBS**, as patented by Rivada Networks, allows location to be identified precisely in three dimensions. By triangulating off the device's own previous estimates of its location, **e-LBS** enables us to triangulate the precise location of a device in all three dimensions with tremendous accuracy.

## e-LBS: 8 key features

1. e-LBS is a software solution.
2. e-LBS enables a wireless mobile operator to meet FCC indoor location requirements-3D.
3. e-LBS provides enhanced location. information to wireless devices and works with or without GPS.
4. e-LBS Complements, does not replace, existing location based systems – co-existence is easy.
5. e-LBS does not require new hardware. or software to be deployed by wireless operators.
6. e-LBS functions either as a group (P2P) or standalone.
7. e-LBS can be implemented on a Context Hub or as a new OS Library function.
8. e-LBS enables the IoT ecosystem with location awareness.

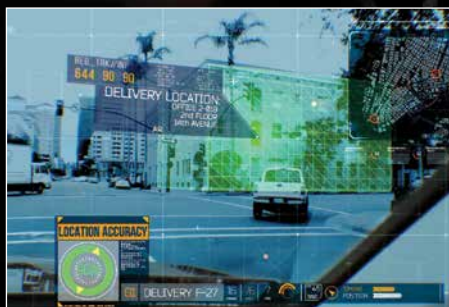
“ What we have achieved here is an unprecedented level of accuracy, with the potential to unlock a whole new generation of applications for location based technology, with minimal disruption to existing carrier networks. This requires no new hardware, and it can be up and running on the major networks within a matter of months. What e-LBS will do is change the way the public thinks about their GPS and navigation systems forever, unleashing a whole new wave of applications previously thought impossible ”

Declan Ganley, CEO, Rivada Networks.

## The power to generate precise, three dimensional location data opens up a world of potential we have previously not dared to consider.

Because we will now be able to track the location of a wireless enabled device to within a meter, the implications for item tracking, security, public safety, and rescue services are not difficult to imagine.

As we move towards an internet of things ecosystem, the ability of wireless enabled devices to tell you precisely where, in your home, that they are, will be a much desired feature in new wireless products. Tracking a parcel, tracing food, securing items in storage – a new frontier in certainty is available to us, thanks to the simplicity of e-LBS.



### LEARN MORE

Rivada Networks, 593 Herndon Parkway,  
Suite 100, Herndon, VA 20170

Call  
+1 571 302 4175

Visit  
[www.rivada.com/#elbs](http://www.rivada.com/#elbs)

Email  
[info@rivada.com](mailto:info@rivada.com)