

TELITMARKET



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In 2007, Telit launched its first 3G module, the UC864. Since its release, there has been a rapid acceleration of interest in 3G and the m2m applications it enables. The increased speed provided through 3G has attracted attention from segments such as telematics and security.

Differently from consumer broadband style usage, m2m applications require a more symmetrical pipe in data flows to and from devices. The first release of 3G cellular data focused on building an infrastructure to support use of services such as mobile TV and music download. These are clearly heavy consumers of the down pipe

(HSDPA) while keeping the uplink side of the communication very lightly used. A few m2m applications have succeeded in this environment but as can be gleaned from the expert review of this quickly rising area of m2m from Tobias Ryberg of Berg Insight, this is about to change.

Best regards,

Faster Upload to Drive Adoption of 3G in m2m Space



Tobias Ryberg
 Analyst, Berg Insight

3G had a difficult start in the consumer market and even in 2007 a majority of mobile subscribers in the Western markets hung on to their 2.5G terminals. In the m2m market, the adoption has been even slower. Many argue that the improved bandwidth of 3G devices does not add any value for typical m2m applications where small sets of data are transmitted in short bursts. With the higher cost of WCDMA devices there seems to be no justification for migrating from less expensive and proven GPRS technology.

One critical factor easily overlooked in the discussion about 3G and m2m is the speed of the data uplink. Today increasingly sophisticated applications generate more and more data that needs to be transmitted over a cellular network. Fleet management, remote product management and video surveillance are examples of applications that can produce much more data than what GPRS networks are designed to cope with. Particularly security cameras could potentially generate near infinite amounts of data.



In this context, the evolution of high-speed 3G networks using HSPA is highly interesting for the m2m community. While it is widely known that HSPA can push downlinks in 3G networks up to 14.4 Mbps and beyond, it is less publicized that the performance in the uplink can be increased to 1.4 Mbps and higher. A1 Mobilkom in Austria became the first European mobile operator to upgrade its network with HSUPA technology to attain this speed. More operators are now following and there will also be an improved version of HSUPA with uplink speeds of up to 5.8 Mbps in the near future.

Comparison of 2.5G and 3G data performance

Technology	GPRS	UMTS	HSUPA
Uplink	14-48 Kbps	64 Kbps	1-5.8 Mbps
Times faster than GPRS	1x	1.5x	20-100x