

The Global M2M/IoT Communications Market

The Global M2M/IoT Communications Market analyses the latest trends and developments in cellular M2M and low power wireless networking.

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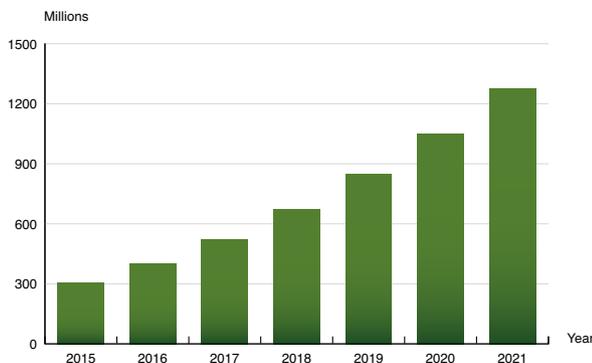


The global number of cellular M2M subscribers reached 398 million at the end of 2016

Berg Insight estimates that the global number of cellular M2M subscribers increased by 30 percent during 2016 to reach 398.1 million at the end of the year – corresponding to around 5 percent of all mobile subscribers. Until 2021, the number of cellular M2M subscribers is forecasted to grow at a compound annual growth rate (CAGR) of 26.2 percent to reach 1,274.8 million at the end of the period. During the same period, cellular M2M network revenues are forecasted to grow at a compound annual growth rate (CAGR) of 26.0 percent from € 6.7 billion in 2015 to approximately € 21.4 billion in 2021. Meanwhile the monthly ARPU is expected to remain stable at around € 1.40.

The global cellular M2M market is diverse, shaped by the economic conditions in different parts of the world. Europe and North America are the most advanced regions in terms of adoption. At the end of 2016, the number of M2M subscribers per 1,000 people was approaching 200. In absolute terms, Europe (EU28+2) was the larger of the two with an estimated 95.5 million M2M subscribers in Q2-2016, compared to North America's 62.5 million. Japan and South Korea are notably behind the Western countries in the adoption of cellular M2M with 103 and 85 connections per 1,000 people respectively.

China, Brazil, Russia, South Africa and Turkey are leading adopters of cellular M2M among the world's major emerging economies. While China already has the largest installed base of an estimated 118 million M2M devices in Q2-2016, the relative adoption rate is still half of Europe and North America at 86 connections per 1,000 people. Brazil and Russia had around 55 connections per 1,000 people each, corresponding to 11.6 million and 7.8 million M2M subscribers respectively. South Africa and Turkey are the most advanced markets in the Middle East & Africa region with 5.3 million and 3.5 million M2M subscribers respectively at the end of Q2-2016. The South African market is highly advanced with a relative penetration rate of 96 per 1,000 people, which is higher than China and South Korea and almost equal to Japan. As the Western markets continue to grow at a high rate, there is every reason to believe that the cellular M2M markets in the rest of the world will sustain very high growth rates in the foreseeable future. In addition, India and South East Asia offer a very large and still mostly untapped potential. ►



Cellular M2M network connections (World 2015-2021)

► The cellular IoT technology landscape is in a phase of transformation. GSM/GPRS is gradually losing its grip on the market, making way for 3G and 4G technologies. WCDMA/HSPA has emerged as a major technology in the past years through a combination of the phase out of 2G services in markets such as Japan, Australia and the US and the evolution of more bandwidth-demanding applications. 3G technology is however already being pushed aside by 4G for high-end applications. The availability of LTE CAT-1 and CAT-M will lower the threshold for migration from 2G to 4G in advanced markets. The trend will accelerate when NB-IoT devices start to appear in volumes by 2018. 2G will however remain as the main option in emerging markets where NB-IoT is unlikely to become widely available before the mid-2020s. By 2021, Berg Insight believes that 4G will account for 80 percent of global shipments of cellular M2M/IoT devices, with a relatively even distribution between high-speed CAT3+, mid-range LTE-M and low-end NB-IoT. 2G devices based on GPRS will account for the remaining market share, while 3G will almost have disappeared. CDMA is currently having a short revival as a low-cost alternative in the North American market but will also demise when the last US 2G networks approach their end of life.

The principal financial metrics for M2M and more recently IoT has until recently been projected, not actual, revenues. Berg Insight believes that the absence of actual revenue figures in a market is a strong indicator that it has not yet reached maturity. Therefore, the fact that some of the world's largest mobile operators now disclose M2M/IoT revenue figures is an important milestone showing that the market has entered a new phase. Verizon, Vodafone and Telefónica, whose combined share of the global installed base of cellular M2M devices is 15–20 percent, reported an aggregate sum of nearly € 1.4 billion in M2M/IoT revenues for the first nine months of 2016. If representative for the industry as a whole, the figure suggests that the total yearly revenue contribution from M2M/IoT to the world's mobile operators was approximately € 11 billion in 2016. The indirect value was even higher as many telecom operators have sizable system integration businesses which are key partners in customer IoT projects.

This report answers the following questions:

- How will the global cellular M2M market evolve over the next five years?
- What are the main drivers behind growth in major regions and industries?
- What is the status of cellular M2M in emerging markets?
- What are the leading global mobile operators' strategies for the M2M/IoT market?
- How much revenues did leading telecom groups generate from M2M/IoT in 2016?
- How will LTE-M and NB-IOT transform the cellular M2M market?
- What is the outlook for emerging low power wireless networking technologies?

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Glossary

About the Author



Tobias Ryberg is co-founder and principal analyst responsible for the M2M research series. He is an experienced analyst and author of numerous articles and reports about IT and telecom for leading Swedish and international publishers. All major vertical market segments for Wireless M2M/IoT have been his major research area for the past 13 years.

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