

# Low Power Wide Area Networks for IoT Applications Market Report & Forecast

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The population of connected devices has grown rapidly over the past decade, largely on the back of cellular networks. The availability of data friendly technologies starting with GPRS (2.5G), followed by 3G and LTE (4G) has provided an almost ubiquitous network for connecting machines. Cellular networks domination the M2M/IoT market may be about to change.

Recent developments have seen the emergence of technologies competing for the connection of machines/things/objects to the internet. For many IoT projects, cellular network costs and power requirements are too high.

This report investigates the plethora of low powered wireless access networks (LPWANs) rapidly becoming available to address these requirements. The purpose of this report is to assess and compare the various LPWAN technologies, both existing and planned in a business and commercial context. Although some comparisons of the different technologies are included in the report these are in the context of their stage of development, time to implement and costs.

This report shows that LPWANs will become an important connectivity medium for the IoT. Companies developing LPWAN networks and technologies are offering the low cost and low power of mesh networks but with wide area network credentials rivalling that of cellular networks. The lower speeds of LPWANs are the trade-off for longer range, offering networks optimized for machine connectivity. With much lower deployment costs than cellular networks, our study shows that the availability of LPWANs will expand the market, allowing more IoT projects to be financially viable.

LPWANs will both compete and collaborate with cellular networks, stimulating market growth with more combinations of connectivity options for end-users. Our forecasts show LPWANs accounting for 26% of total IoT connectivity by 2020.

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### ABOUT BEECHAM RESEARCH

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Beecham Research is a leading market analyst and consulting firm that has specialized in the development of the rapidly-growing M2M/Internet of Things market worldwide for well over a decade, since 2001. Based in London UK, Cambridge UK, and in Boston US, we actively participate in initiatives aimed at achieving M2M market development and growth. We are internationally recognised as thought leaders in this market and have deep knowledge of the market dynamics at every level in the value chain. As a result, our clients come from all parts of the value chain including components and hardware, network operations, system integration, application development, distribution and enterprise adopters. We are experts in M2M/IoT services and platforms and also in IoT solution security, where we have extensive technical knowledge. We are also the leading analysts in satellite M2M, where we have worked with all the network operators and also with the European Space Agency (ESA). In addition, we see Wearable Technology as a key part of bringing the individual closer to the Internet of Things and this is also a primary area of activity for us.

Visit [www.beechamresearch.com](http://www.beechamresearch.com) or  
contact [info@beechamresearch.com](mailto:info@beechamresearch.com)  
for more information.

