

Predictions for IoT: investments in NB-IoT, LTE-M and new capabilities prepare operators for an active 2018

December 2017

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Operator revenue and connection numbers for IoT continue to grow – annual growth rates of around 20% are typical. However, the billion-dollar acquisitions or contract wins of previous years have been absent in 2017. That said, telecoms operators have been building out IoT connectivity networks (NB-IoT and LTE-M in particular), adding capabilities (such as application and device management platforms) and working with the broader ecosystem (including developers, cloud players and hardware vendors). All of which should set the market up for an active 2018.

In this article, Analysys Mason's analysts and consultants outline our expectations for IoT in 2018.

Network technologies

- **Operators in China will continue to lead in NB-IoT in 2018.** China is the leading country for NB-IoT because all three Chinese mobile operators are building NB-IoT networks and government support for the technology is strong. We expect that lead to grow in 2018, and probably some large contract announcements (1 million connections plus). The USA will continue to be the leading country for LTE-M developments thanks to AT&T and Verizon's investments; large contract announcements are less likely though.
- **Operators will launch NB-IoT and LTE-M (not NB-IoT or LTE-M).** Verizon will launch NB-IoT in 2018, complementing its LTE-M network. Telia has also publicly committed to both technologies, as have several other operators. With the incremental cost of upgrading from one standard to both being relatively small (perhaps only an extra 10-20% to do both technologies, rather than just one), for many operators, the question will be which technology to prioritise, and when to launch, rather than selecting only one of the technologies.
- **2018 will be a crucial year for the battle between cellular vehicle-to-everything (C-V2X) and 802.11p technology.** The telecoms industry will increase the pace of development of C-V2X technology. Much attention will be on the European Commission and whether it decides to mandate V2X. A decision either way could have a significant impact on the success of either the LTE-derived C-V2X technology or the 802.11p standard.

Consumer IoT

- **Will the next Apple Watch use LTE-M?** The next generation of the Apple Watch could use LTE-M. This is a stretch given the status of the technology at the end of 2017, but LTE-M will support voice and streaming music (arguably a more important use case than voice) and uses lower-cost modules and, crucially, provides better battery life. In many countries, at least one operator will support LTE-M by mid-2018. An Apple Watch on LTE-M is not likely in 2018, but it is possible.

- **The Kindle 3G model will be applied to consumer IoT.** Vodafone launched ‘V by Vodafone’ in 2017, but the four consumer IoT products come with a monthly EUR3–4 subscription fee, a big detractor for many potential customers. Amazon bundles the cost of connectivity into the upfront cost of the Kindle 3G and we expect other consumer IoT device providers to follow Amazon’s example in 2018.

Enterprise IoT

- **Further M&A of edge analytics and industrial IoT (IIoT) firms.** There was significant investment in on industrial IoT and smart manufacturing in 2017. Start-ups like FogHorn and ForgeRock have secured large investments while established companies such as Apple and GE are collaborating on solution development. Platform providers will build on this growth and will acquire or develop features for the IIoT in 2018.

Global connectivity

- **IoT MVNOs will continue to surprise.** In 2017, some relatively small IoT MVNOs won notable contracts with large automobile manufacturers to provide in-car connectivity (for example, Globetouch’s contract with GM; Truphone’s with Kia, as well as the continuing relationship between Cubic and Audi). We expect more of these types of contracts to be awarded in 2018, and for this trend to increasingly become a concern for larger MNOs. M&A deals are possible, either between smaller MVNOs or with MNOs buying up their smaller rivals; with more than 20 firms offering global IoT connectivity, the market is ripe for consolidation.

Asia-Pacific

- **Operators in emerging Asia-Pacific will accelerate their IoT businesses.** China is at the forefront of IoT developments, but many operators in emerging Asian markets have been slow to develop their IoT propositions. This is set to change; regional operators are investing in building IoT connectivity and data management platforms mostly through vendor partnerships. Regulatory developments in automotive and electric vehicles as well as in government-led smart city and smart energy initiatives will start to yield tangible opportunities. We expect the total number of IoT connections in the region to grow by 24% in 2018.

Data protection

- **The European General Data Protection Regulation (GDPR) will create opportunities for operators.** Companies operating in Europe need to be GDPR-compliant by May 2018. GDPR will present opportunities for operators to help enterprise customers, especially SMEs, to ensure that all devices including IoT devices comply with the regulation. Connectivity and device management platforms will continue to play an important role in helping clients achieve compliance. Operators such as Deutsche Telekom, Telefónica and Vodafone with cyber-security business units and a good understanding of the issues will be well placed to advise enterprises on complying with GDPR for IoT initiatives.