

Narrowband IoT: the (low power) engine of IoT value



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I believe that a cellular Low Power Wide Area technology such as NB-IoT is a key enabler in unlocking the value of IoT. That's a bold statement, but it reflects the important ability to connect more things than ever before reliably, securely and cost effectively. For many organisations it's a turning point. It will enable them to achieve visibility, efficiency and, ultimately, exciting capabilities that were previously out of reach.

The real revolution will be taking place underground, in remote locations, where coverage reach, and power efficiency and cost-effective scale are important so that organisations are able to communicate, monitor and track their assets across a wide variety of sectors and applications, leveraging a globally interoperable and standardised eco-system.

I want to emphasise the value that's on offer. Connecting more things will yield an immense amount of valuable data which will drive digital transformation and deliver automation, efficiency and new services (which in turn can increase disruption). It will make our world safer, more economically vibrant, and help us tackle everything from energy sustainability to dealing with crime and improving asset and personal security.



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Cellular LPWA (NB-IoT and LTE-M) has introduced a power efficient form of IoT (for devices with limited accessibility) which offers far greater coverage penetration than previous forms of connectivity. It is also future proof and will deliver global standard advantages for all of our connectivity options (2G, 3G, 4G and eventually 5G)

Vodafone has been (and still is) driving the standardisation of NB-IoT to provide a higher performing LPWA technology for customers instead of the multiple, fragmented proprietary technologies that were (and still are) available on the market. It also enables the rollout of these technologies to leverage the capabilities of existing mobile network infrastructure. That's why we've been able to launch and rollout NB-IoT in ten markets over the last year. That was the key to opening the floodgates to connected things: now, you knew that a device could be deployed for 10 years or more and it would never go out of date.

The development of the standard was achieved in record time. It took LTE nearly two years to do the same thing. We did it in under seven months. We're now working with customers and partners to accelerate commercialisation, through collaboration, multi-location Open Lab capabilities to develop and test exciting new solutions and products.

The opportunity is there now. The global standardisation process gives us the guarantee that NB-IoT and LTE-M technologies are future proof and an integral part of how we evolve our networks, including 5G which will ultimately deliver a comprehensive spectrum of capabilities to enable everything to be connected, from the smallest sensors (using NB-IoT), to cars, to drones and manufacturing plants and everything in between.

Naturally, we are working to make elements such as power consumption and management better. But we already have batteries which can last for years. We're working on how data is collected and transmitted so that the processes use as little battery power as possible. Device manufacturers are making strides in that regard all the time.

It's a journey, but it's one that is already yielding benefits for those savvy enough to make good use of NB-IoT. Is it time to make a move? Yes, and the sooner the better. Partnering with Vodafone means you benefit from the first mover advantages we've accrued as well as our cutting-edge technology. We can support you to ensure that we optimise your solution to your specific business circumstances and we will work with you to ensure you make the most of the potential the technology offers, now and in the future.

Find out more, talk to us: iot@vodafone.com