

Vodafone strengthens global IoT leadership with new network rollout

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Vodafone New Zealand has simultaneously launched two new IoT¹ technologies, NB-IoT and LTE-M², which will enable Kiwis to connect into the world's leading IoT platform for a new, innovative range of IoT applications. Vodafone is the global leader in managed IoT, with 77 million connections in more than 30 countries.³

Vodafone Technology Director, Tony Baird says, "This is a world-first combined launch of NB-IoT and LTE-M IoT networks at the same time within the Vodafone Group. With over 1.6 million cellular IoT connections, Vodafone New Zealand has already cemented itself as the largest provider of IoT in New Zealand⁴, and these technologies are expected to drive the next wave of IoT innovation here in New Zealand and overseas.

Baird adds, "When combined with our extensive mobile and fixed networks these new IoT technologies will give Kiwis access to some of the best connectivity experiences in the world."

Globally, Vodafone IoT technologies are embedded within connected vehicles built by Audi, BMW, Daimler Benz, Ford, General Motors, Jaguar Land Rover, Porsche, SEAT, VW and Yamaha motorbikes.

Vodafone IoT Country Manager, Scott Pollard says both technologies will enable connectivity for a wide range of devices using licensed spectrum in a secure, scalable and affordable way.

"NB-IoT delivers signal strength that can penetrate through concrete, underwater, underground and deep into infrastructure. It is set to shape the connected farm of the future with applications like remote monitoring for stock feeding, electric fencing and water tank levels.

"LTE-M offers strong battery life and fast throughput of data to enable real-time applications like vehicle tracking, asset monitoring and logistics, with future support for voice calls. Kiwi entrepreneurs and developers have been anticipating the arrival of these technologies and are responding with enthusiasm to the launch. We have some pilot projects already underway."

In stunning Punakaiki, home of the Pancake Rocks on New Zealand's West Coast, local volunteer group Predator Free Punakaiki is working to create a native bird sanctuary. In their quest to eradicate predators, they have turned to an innovative IoT pest control solution, MinkPolice, which already has a track record of success in Europe.

Heiko Kaiser, Managing Director of MinkPolice explains, "Within each trap there is a SIM that connects via Vodafone's IoT network to the MinkPolice smart-phone application. Volunteers receive a notification whenever a trap is activated which sends them to the exact location of that trap, to clear it, reset it, and trap more pests more often. Initially, the traps used Vodafone's global SIM on the 2G IoT network, but we're about to move to the NB-IoT network, which will enable the volunteers to set traps in more remote areas of the sanctuary knowing they'll still have reliable connectivity."

Grant Parrett of Predator Free Punakaiki adds, "The benefits for our volunteers have been fantastic. Rather than the volunteers committing to walking through arduous terrain to check on traps hoping to find one that's been triggered - a process that takes up to 4 weeks to cover the trap lines - they can target

traps they know have been activated. Ultimately, we will be using Vodafone's NB-IoT technology to help save native species, support our hard-working volunteers and work towards achieving a Predator Free Punakaiki and beyond that, a Predator Free New Zealand by 2050."

Adds Pollard, "MinkPolice is a great example of leveraging global innovation into New Zealand using our network. The solution already exists in Europe and now our NB-IoT network can put that technology to use to help solve a problem we have here in New Zealand."

Motiv, an Auckland-based IoT solutions company, has designed customised hardware and a web-based scheduling and control system to manage and monitor the status of electronic school road signs across Auckland. Previously, schools were responsible for manually monitoring the signs, including switching them on and off. At the same time, Auckland Transport wanted visibility of their fleet condition so that they could explore automated maintenance models that would increase service uptime.

Managing Director of Motiv Solutions, Ben Birch explains, "We've created an IoT solution that delivers Auckland Transport real-time performance of their smart school-sign fleet, meaning they are alerted to any road-side collisions with the sign, thefts or vandalism and can keep track of solar performance. The application has been ported to operate on Vodafone's LTE-M network and has delivered exceptional performance throughout engineering testing of the first live towers.

Birch continues, "The LTE-M network offers a powerful combination of low power and high throughput meaning we have total control over how much power we use and how much data we want to collect. The solution offers peace of mind to schools who can now operate the signs stress-free knowing they have the support of Auckland Transport should the signs become damaged or stop operating properly."

NB-IoT and LTE-M will be deployed securely on the existing Vodafone 4G network.

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Notes to Editor:

- ¹The Internet of Things (IoT) connects devices, objects and machines to the internet, turning them into intelligent assets that communicate with the world around them
- ²Both NB-IoT and LTE-M technologies are known as Low Power Wide Area Network (LPWAN). Low Power Wide Area Network (LPWAN) is a category of wireless communication technologies designed to support Internet of Things (IoT) deployments
- ³Vodafone has the leading global IoT platform with over [77 million SIMs](#) - Vodafone Group H1 2018/19. Results as of 13 November 2018. The global IoT platform is used to connect cellular technologies including LTE-M today. It will be available for use with NB-IoT in early 2019 to connect to devices overseas
- ⁴International Data Corporation (IDC) research shows that Vodafone has more IoT connections than any other cellular provider in New Zealand
- A number of different technologies have been developed to fulfil LPWAN requirements, and Vodafone are rolling out NB-IoT and LTE-M (CAT-M) because they both run across licensed spectrum, providing less interference
- To date Vodafone New Zealand has deployed its NB-IoT coverage across the 4G mobile network with 97.5% population coverage and 48.2% land area coverage at launch
- The LTE-M network roll-out is underway and has 60.1% population coverage at launch. This will increase to 96.6% population coverage and 40.8% land area coverage as additional sites are rolled out
- For more information and to find out where you have LPWAN coverage, visit our website [here](#).

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- Vodafone Group is one of the world's largest telecommunications companies and provides a range of services including voice, messaging, data and fixed communications. Vodafone Group has mobile operations in 25 countries, partners with mobile networks in 44 more, and fixed broadband operations in 18 markets. As of 30 September 2018, Vodafone Group had 531.9 million mobile customers and 20.4 million fixed broadband customers, including all of the customers in Vodafone's joint ventures and associates

About Vodafone NZ:

Vodafone is a leading digital services and connectivity company, with the ambition to bring digital inspiration and innovation to all New Zealanders. For more information, please visit: <http://www.vodafone.co.nz>.

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