Dated 16 June 2017

ATTACHMENT I

Re:

Vodafone Hutchison Australia Pty Ltd submission to the Australian Competition and Consumer Commission

Other dependent markets:
Internet of Things (IoT) and Machine-to-Machine (M2M)

1 Overview

In its Draft Decision, the Australian Competition and Consumer Commission (**ACCC**) asked for further submissions in respect of downstream or retail markets for the supply of machine-to-machine (**M2M**)[1] and the Internet of Things (**IoT**) mobile services.[2]

Vodafone Group (**Vodafone**) is a 50% shareholder in Vodafone Hutchinson Australia (**VHA**). As a consequence, many products supplied by VHA are products developed by Vodafone. Vodafone is a global leader in supplying innovative M2M services including livestock monitoring, remote machinery, vehicle tracking, and remote diagnostics. In New Zealand, for example, Vodafone has provided innovative M2M services which have greatly benefitted regional and remote consumers. However, in Australia and in particular in regional Australia, the lack of a domestic roaming declaration is crippling Vodafone and VHA's ability to provide these world leading services to regional consumers who would otherwise benefit the most.

VHA has previously provided the ACCC with extensive information regarding Telstra's conduct in preventing Vodafone and VHA from competing effectively to supply M2M services in VHA's supplementary submission dated 13 March 2017 (**Supplementary Submission**). [CIC[

Telstra is effectively preventing Vodafone and VHA from entering and competing in the market to supply M2M or IoT services to purchasers. Further Telstra's conduct means that many of Vodafone's global customers, with operations in Australia, are being forced to acquire M2M services from Telstra because of a lack of choice in the Australian M2M markets.

[CIC]

---

1 M2M and IoT 'products' and 'services' are used interchangeably. Typically M2M and IoT is supplied as a bundle of goods and services which include user devices, software, and data connectivity.
2 See Australian Competition and Consumer Commission, *Domestic mobile roaming declaration inquiry, Draft Decision*, May 2017 page 14.
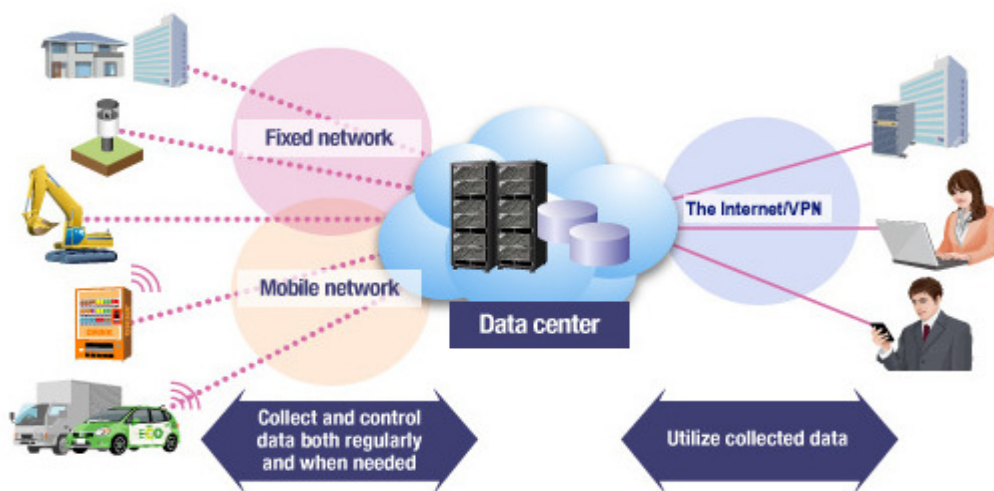
2   What is IoT and M2M?

M2M is the name given to a range of technologies that permit information to be exchanged automatically between machines or devices, without human intervention. The M2M market[3] is driven by innovation and is expected to grow in Australia rapidly. Communication networks, particularly mobile networks play a key part in the M2M market.

M2M refers to a process which involves a number of stages including:

- collection of data by a hardware device;

- transfer of that data through a communications network (e.g., a mobile network);

- receipt of data by another device using a software application;

- translation of that data into something that is meaningful for the end user, i.e. information relating to the level of moisture in the soil.

The M2M service may also be coupled with remote managed applications to allow real time responses that may themselves be automated. A diagram is provided below to illustrate:

Source: http://www.nec.com/en/global/solutions/m2m/index.html

---

[3] See for example: https://ww2.frost.com/news/press-releases/australian-m2m-market-grow-181-cagr-2013-doubling-value-2016-says-frost-sullivan/, and https://www.forbes.com/sites/louiscolumbus/2015/12/27/roundup-of-internet-of-things-forecasts-and-market-estimates-2015/#3d1824d54b93.

From a customer's perspective, they would purchase an 'application' which generally includes many of these components (e.g., user hardware, software, and network connectivity). Typically, the M2M service is deployed on a large scale to maximise the utility of the application. In other words, M2M services of the kind Vodafone offers are typically driven by demand from business customers that can deploy them across the whole of business to achieve significant savings from scale.

From a supplier's perspective, since what makes the application work is a bundle of components, any supplier of a component can offer the end service to market as long as the supplier is able to acquire the other components. For example, a software developer[4] makes the software that operates the M2M application, the software developer then acquires the device from a hardware manufacturer, and also partners with a networks operator to provide connectivity. The software developer can then 'bundle' all of the components to offer a M2M service to the market. This ensures the highest quality of user experience as the user purchases a 'ready to use' service rather than having to source separate components individually.

However, if a supplier of a *component* is a monopolist, that supplier has market power to capture rents from suppliers of other components and from consumers. What this means is that Telstra, being the only mobile network operator that can provide connectivity between a M2M device and the 'cloud' in much of regional Australia, becomes a bottle neck for the supply of M2M services in Australia with significant impacts on the ability of its competitors[5] to offer M2M services. Without access to Telstra's monopoly network, it is impossible for a competitor to bypass Telstra to supply a M2M service to market that requires mobile connectivity in regional or rural Australia.

The ability for Telstra to seek rents distorts competition, impedes innovation and productivity growth, in the same way any monopoly infrastructure operator could. In practice, this means that Telstra can control all aspects of M2M products in Australia where mobility is a key feature of the M2M application, especially so if mobility in regional Australia is required. Telstra's strangle hold over an industry driven by innovation means the biggest losers are Australians.

3   Some M2M services are inherently regional focused

Relevant to this declaration inquiry, many of the applications of M2M services that VHA and/or Vodafone would seek to deploy in Australia have the greatest utility in regional and rural parts of Australia. Such

---

4 For illustrative purposes only, the 'lead' supplier can also be the network operator or the hardware manufacturer, or a partnership of two or more of the suppliers.
5 'Competitors' refer to competing suppliers of M2M services and are not limited to other network owners such as VHA and Vodafone.

services are aimed at industries which typically operate in those parts of Australia, particularly agribusiness and mining solutions.

VHA's expectations are driven by Vodafone's experience globally, and VHA has no reason to believe the M2M markets in Australia would develop different.

In New Zealand, for example, Vodafone has deployed a range of M2M services which predominately increase productivity and efficiencies in agriculture, these include services for (see attachments enclosed within this document):

- water management (See WaterForce);

- fertilizer management (See Precision Farming);

- farm safety (see Blackhawk), and

- business automation (see Wairarapa Moana and Miraka).

All of the above services are designed and implemented to achieve the same goal of improve efficiencies and reduce waste in the agribusiness sector of the economy. Such applications would have immense benefit to Australian farmers, if VHA and/or Vodafone were not prevented by Telstra's conduct to offer similar services to Australians.

Vodafone has also deployed fleet management services in other jurisdictions. Generally, these services increase efficiencies from operators of vehicle fleets by providing real time data (such as for when a vehicle is due for a service), and can include safety features (for example the application will automatically call emergency services if it detects the vehicle has been involved in an accident). These services have applications for mining equipment and can for example alert the machine operator when a excavator is due for a service or require parts placement. These solutions could also improve efficiencies in allocation of capital for the business as the business could also track the 'down' time for these expensive pieces of equipment in real time to minimise 'waste'.

Such applications would have immense benefit to the Australian resources sector, if VHA and/or Vodafone were not prevented by Telstra's conduct to offer similar services to Australians. Global customers of Vodafone have been prevented from deploying M2M services which are deployed in other countries in Australia.

[CIC]

4 What is Telstra doing?

Telstra is now, through the introduction of a new policy, preventing the supply by VHA and Vodafone of M2M services that use international permanent roaming SIMs. This is highly is unusual considering most global M2M services are provided through international permanent roaming. Telstra is also refusing to negotiate reasonable commercial terms for the only other mechanism by which VHA and Vodafone could deploy M2M services, i.e., domestic mobile roaming.

In addition to its policy, Telstra has approached customers and/or potential customers of Vodafone to alert them of Telstra's new policy and make them aware that Telstra could turn off their M2M service at will by terminating the existing arrangement Vodafone has with Telstra which allows Vodafone to supply those M2M services.

As far as VHA is aware, Telstra is the only network incumbent in the world that seeks to block market entry into the M2M market by refusing to supply international permanent roaming SIMs. Ironically, it appears Telstra may be supplying M2M services for use in other countries by using international permanent roaming SIMs.

VHA considers that Telstra's conduct and policy has been implemented with the purpose of preventing competition and is having the effect of substantially lessening competition. VHA also considers Telstra's conduct is unconscionable and likely to be misleading and deceptive.

[CIC]

5 Section 152AB of the CCA

The ACCC would make a reviewable error by not considering "*services supplied by means of carriage services*" as required by s152AB(2)(b) of the *Competition and Consumer Act 2010* (**CCA**) or by identifying the implications of declaration for the supply of those services.

M2M services are services which rely on carriage services and are therefore captured by s152AB(2)(b) of the CCA. For this reason, the ACCC should have, or at least now, turn its mind to the markets for IoT and M2M services.

6 VHA's Supplementary Submission

Enclosed with this document are relevant extracts from Part A of VHA's Supplementary Submissions and further relevant material including:

- Extracts from VHA's Supplementary Submission outlining Telstra's conduct in preventing Vodafone and VHA from supplying innovative M2M services in regional Australia;

- Examples of the M2M solutions Vodafone has already deployed in New Zealand including for use in agriculture (water management, fertilizer management), farming (ATV safety), and fleet management; and

- Internal VHA presentation on Vodafone M2M initiatives to increase productivity and efficiencies for farmers in New Zealand.

1.1.2 Response by VHA to those submissions

VHA wishes to make two key points in response to Telstra's submission:

- First, the exact opposite of Telstra's submission is actually true – the absence of domestic mobile roaming is resulting in real harm to regional consumers and is harming the delivery of innovative telecommunications services to regional Australia.

- Second, Telstra's arguments are overstated to an alarming degree with many adjectives and hyperbole, but little or no evidential support.

1.1.3 Evidence #1: The absence of domestic roaming is impeding innovation

Contrary to Telstra's arguments that the supply of domestic mobile roaming would impede innovation, the prevailing economic thinking dictates that competition, and not the continuation of market power, spurs innovation.

This is precisely the point made by Dr Derek Ritzmann, Compass Lexecon in his second independent expert report:

> "Professor Yarrow takes a number of strong positions on the interaction of competition with investment and innovation. These positions in turn appear to be based on assumptions that appear to me to be difficult to defend, dated, and in my opinion at odds with the majority opinion of the economics profession today."

> "In contrast, the more modern view is that competition in fact spurs investment in innovation as firms compete to outpace their rivals with new technologies, and that the harder the competition, the more firms are driven to innovate."

> "Moreover, in my view, increased competition in the currently Telstra-only areas would likely spur competition and thereby investment and innovation, rather than to inhibit them."

VHA provides evidence of infrastructure investment incentives later in this submission and, in this section, provides evidence as to how declaration of domestic mobile roaming will spur real innovation and investment in products and services, for example M2M solutions.

[CIC begins]

[CIC ends] In the absence of a domestic mobile roaming declaration, Vodafone cannot otherwise supply its innovative global M2M solutions to some 60% of Australia's mobile coverage area.

Vodafone is a world leader in M2M services. M2M supports many global products, including livestock monitoring, remote machinery, vehicle tracking, and remote diagnostics. Innovative Vodafone M2M services are supplied in other countries, including New Zealand, driving productivity gains. Telstra's self-interested conduct will have a real adverse impact on innovation and productivity in the agriculture, mining, transport, energy and consumer sectors in regional Australia.

The failure by Telstra to supply domestic mobile roaming, [CIC begins] [CIC ends] is impeding VHA, and the broader Vodafone Group from supplying into regional Australia innovative machine to machine (**M2M**) technologies, including intelligent monitoring of livestock, water management, Smartphone management of agricultural businesses, remote machinery, and remote diagnostics. These ready-to-go products and services have been successfully launched by Vodafone globally, including in New Zealand. VHA provides more evidence below.

[CIC begins]

-

-

-

We're getting rural businesses ready for the future of farming

The world is changing rapidly and agribusinesses must be ready to rise to the challenges of increased export and domestic demand. This means production efficiency, while keeping a lid on costs and meeting new environmental regulations. From planting and maintenance, to processing and the final sale, Vodafone powered mobile technologies are helping New Zealand's world-leading agriculture sector run more efficiently and economically to keep ahead of the pack.

Reliable rural coverage and connection

With improved 3G coverage in country areas, our rural customers can work better and faster. Along with the Rural Broadband Initiative, our 4G rollout over the next five years will deliver ultrafast broadband speeds to rural communities and agribusiness. With more access to high-speed wireless broadband, farmers can integrate processes from end-to-end to improve productivity, increase data accuracy and work flexibly from their smartphone or tablet — even when out on the farm. What's more, better connectivity means access to web-based tools and cloud apps to help business run smoothly, and keep people in touch.

M2M technology is evolving agribusiness

Technology adoption in the agricultural industry is ever increasing, and our machine-to-machine platform is transforming farms into smart farms. Innovative M2M and GPS technologies automate farming processes to deliver live data updates from the field, enhancing planning and resource usage while lessening environmental impact, increasing on farm safety and helping farmers augment their export potential. Whether you need an end-to-end solution or managed connectivity, with 20 plus years of experience in M2M, our dedicated technology team can make sure your business is ready to take on global challenges facing the agribusiness sector today — and in the future.

New Zealand agribusinesses are ready

Ready to grow · **Ready to harvest** · **Ready to work safely** · **Ready for production** · **Ready to export**

Ready to grow

WaterForce

Keeping soil properly irrigated is vital – not only to soil condition, but to maximising your budget and meeting environmental requirements. Using Vodafone's wireless machine-to-machine network, WaterForce measures soil moisture and monitors water levels, while SCADAfarm technology monitors the irrigation pumps. The data is accessed by farmers on any internet capable device, with text and email notifications also available making this a powerful land management tool to make farming easier and more efficient.

Ready to harvest

Precision Farming

Getting fertiliser right can be a bit of a gamble and getting it wrong can pollute waterways. Thanks to mobile technology, these problems are solved. A GPS farming device is installed in the vehicle spreading the fertiliser and data is sent via Vodafone's machine to machine network to give farmers access to a computerised map that precisely details fertiliser deposits. Smart decisions mean farmers can maximise both nutrient use and their budget.

Ready to work safely

Blackhawk

Blackhawk Tracking and Blue Wing Honda have teamed up to create Farm Angel, a world-first solution to increase quad driver safety – even when they're in the most remote parts of a property. A Bluetooth and WiFi enabled GPS tracking device fits onto ATVs and sends real-time rider data on speed, acceleration, tilting and more to Blackhawk's secure server, to help farm managers keep a watchful eye on their staff safety and deliver better driver training.

Ready for production

Wairarapa Moana

Thanks to new technology and the Vodafone network, Wairarapa Moana has mobilised their business for better efficiency and faster problem solving. Using an online farm management system, data is automatically collected and displayed across Their seven farms, five sharemilking farms and a dairy support function, ensuring farmers can access real-time information across all sites via smartphone and tablet.

Ready to export

Miraka Limited

Seamless communication is vital to any business – particularly one like Miraka that needs to keep in touch with international customers. So when the thick concrete walls of the state-of-the-art milk factory put a stop to on-site mobile calls, Vodafone supplied two coverage indoor repeaters to boost coverage and keep staff connected. Away from the factory, Vodafone powered EROAD GPS technology enables their transport suppliers to keep a close eye on their vehicle fleet, while reducing running costs and vehicle emissions.

WaterForce is a Ready Business

Ready to add a splash of efficiency to sustainable farming.

Vodafone
Power to you

Mobile technology is helping take the guesswork out of irrigation. WaterForce ensures the benefits keep flowing to New Zealand farmers.

You can't grow anything without water. Inadequate irrigation suppresses production and can be detrimental to the soil. Go to the other extreme and you'll be wasting water, which is an increasingly precious resource. Getting the balance right is what WaterForce offers — and they couldn't do it without Vodafone technology.

Farmers are thirsting for smarter irrigation systems.

Using Vodafone's machine-to-machine network, WaterForce measures soil moisture and monitors water levels, giving farmers a powerful land management tool that also helps them meet environmental compliance requirements. Vodafone enabled SCADAfarm technology monitors the irrigation pumps for pressures, flows and faults, and enables remote 'on and off' control of pivot irrigators as well as the ability to adjust the amount of water used.

What they did differently

Constant monitoring means smarter farming. Network data loggers sample the soil hourly and record the moisture levels in the unit, information that is transmitted to WaterForce every 24 hours using Vodafone's network.

Piping data direct to farmers. Soil moisture data can be accessed by farmers on any internet-capable device, with text and email notifications also available. Using a wireless machine-to-machine (M2M) network makes all this possible without cables.

Good for the farm, good for the planet. Minimising the risk of over or under-irrigation results in healthier soil, while ensuring farmers don't waste water, power or fertiliser.

Wireless for greater efficiency. Vodafone's wireless M2M network enables accurate soil measurement and irrigation device management without cables.

How we helped WaterForce get ready for better business

- Network data loggers measure and record soil moisture levels hourly and send data from Vodafone's network to Waterforce's secure server every 24 hours, enabling farmers to monitor and manage their soil.

- Vodafone enabled SCADAfarm technology monitors the irrigation pumps for pressures, flows and faults, and enables remote 'on and off' control of pivot irrigators. Farmers can effectively manage irrigation by remote control.

- Giving irrigators the capability to adapt to new environmental requirements in order to meet strict nutrient management and water quality standards.

- Thanks to the Vodafone SuperNet, data can be accessed by farmers anywhere, on any internet-capable device.

- Vodafone's M2M network is central to the WaterForce system. Units are supplied complete and configured to the farm for easy installation.

To find out how Vodafone can help you become a Ready Business, contact your Account Manager or call 0508 249 777.

Precision Farmimg is a Ready Business

Ready to help farmers grow.

Vodafone
Power to you

Precision Farming is a Ready Business

Fertiliser is fantastic for making grass grow. It's a vital input to New Zealand farms, which is why farmers regularly book a truckload to be spread across their paddocks.

But because fertiliser is expensive stuff, you don't want to order too much. You also want to avoid excess nutrients running off your land and polluting precious waterways. So Precision Farming came up with a smart way of using mobile technology to stop farmers spreading too much of a good thing.

Precision Farming helps farmers harvest big savings

Precision Farming leads the world in helping farmers manage their fertiliser use. A special GPS Farming device is installed in the vehicle spreading the fertiliser and data is sent via Vodafone's network to Precision Farming's secure server. This data is then overlaid on a computerised map, so the farmer can login and see where every last kilogram has been deposited. With accurate feedback from their fertiliser programme, farmers can instantly spot any wastage and adjust their next order.

What they did differently

GPS seamlessly linked to Vodafone's network. The Precision Farming system relies on GPS and machine-to-machine technology. Vodafone supplies the special SIMs required, and the Precision Farming system is linked to Vodafone's network to ensure continuous transmission of data from the field.

Real-time farming of every last kilo of fertiliser. Constant monitoring of the width and rate of fertiliser application provides priceless feedback. There's no point paying for a double helping in the centre of the field if the far corner is missing out.

A network that goes off the beaten track. Only Vodafone can supply the nationwide 2G coverage Precision Farming needs to offer real-time transmission of data from farms from Bluff to Kaitaia.

The power of information. With Precision Farming farmers get valuable insights to help them run their properties more efficiently. Customers can check the virtual trail left by the fertiliser spreader and fine-tune their farm management accordingly.

How we helped Presision Farming get ready for better business

- Precision Farming helps farmers grow more grass, rather than buy more fertiliser. Electronically captured data enables farmers to easily make decisions based on complete, timely, accurate information.
- Seamless online ordering helps ensure farmers utilise the right amount of the right fertiliser in the right place at the right time.
- Farmers can monitor their NPK applications in real time, paddock by paddock to ensure they are within regulatory guidelines.
- Farmers can make smarter decisions more quickly and within budget.
- The Precision Farming system can be applied to other activities, such as spraying and effluent spreading, to ensure farmers get optimum results from all substances applied to the land.
- The accurate data provided by Precision Farming gives farmers the ability to maximise pasture growth for their budget.

To find out how Vodafone can help you become a Ready Business, contact your Account Manager or call 0508 249 777.

Blackhawk Tracking is a Ready Business

Ready to help farm workers stay safe.

Vodafone
Power to you

ATVs, also known as quad bikes, are the workhorse of New Zealand farming. You can ride them just about anywhere – which can be a bit of a problem.

If you're a farm owner or manager, you want to be sure your ATVs are being ridden responsibly. Are unqualified riders taking them where they shouldn't go and taking dangerous risks? The last thing you want is a critically injured worker trapped under an overturned ATV way off the beaten track.

Blackhawk Tracking worked with Blue Wing Honda to develop a world-first

Farm Angel is an ingenious system that looks out for ATV drivers – even when they're in the remotest paddock on the farm. It's a WiFi enabled GPS tracking device that connects to Vodafone's network, sending real-time rider data to Blackhawk's secure server. The driver's route is tracked, and because farm managers can access the real-time data via the web or smartphone app, they can keep an eye on riders for mentoring purposes. The ATV's ignition can only be started by those with a Farm Angel Halo fob or wristband, and alerts are activated if pre-set acceleration, speed or tilting limits are breached. If the ATV tips over, an emergency alert with the GPS location details is automatically sent.

What they did differently

Keeping Kiwis safe on the land. Real-time driver behaviour data is sent via Vodafone's network to Blackhawk's secure server helping farm managers improve the safety of ATV riders and mentor their driving abilities.

Emergency help even when a rider is trapped or working away from the vehicle. Real-time monitoring of ATV location and automated emergency call service enables a speedy rescue in the case of an accident.

Fleet management made easy. Farm Angel lets farmers keep an easy and accurate record of the servicing and maintenance of their ATV fleet.

Real-time data from the Vodafone SuperNet. The combination of WiFi, Bluetooth, GPS and Vodafone means Farm Angel is always on line. And if a remote location makes coverage an issue, Farm Angel can run off satellite communications.

How we helped Blackhawk Tracking get ready for better business

- Vodafone's global machine-to-machine platform meant Blackhawk could quickly turn its clever concept into a working product.
- Connecting via the Vodafone SuperNet enables farmers to access real-time data via the web or smartphone app, so they know the location and rider performance of every ATV in their fleet.
- Alerts are activated if the bike is ridden dangerously, giving farm managers the ability to offer targeted training.
- If the bike tips over, an emergency call is made via the Vodafone network to ensure rapid response to a potentially life-threatening situation.
- Up-to-date servicing knowledge is at the farmer's fingertips, to improve fleet management and productivity.

To find out how Vodafone can help you become a Ready Business, contact your Account Manager or call 0508 249 777.

Wairarapa Moana is a Ready Business

Ready to help farmers
harvest more data.

Vodafone
Power to you

Sunshine, rain and fertiliser are vital to the farming success of Wairarapa Moana. There's another crucial input, too. It's called mobile data.

With a little help from Vodafone's mobile technology, the staff and owners of Wairarapa Moana are driving production to new levels. Real time data from a multitude of sources is helping farm managers make smarter decisions every day. The result is one of New Zealand's most dynamic agribusiness ventures.

How mobility helps Wairarapa Moana get more done in the field

Owned by over 3,000 descendants of the rangatira and hapu that lived around Lake Wairarapa and Onoke Moana, Wairarapa Moana operates seven farms, five sharemilking farms and a dairy support function. Employing a standardised online farm management system and Vodafone's network to automatically collect and display data across the properties means farm managers can access real time information gathered across multiple sites. And they can do it all on their smartphone and tablet – without stepping foot in the office.

What they did differently

Constant communication across multiple sites. With over 80 staff operating across 15 different sites, coordination is vital. A standardised farm management system automatically collects and displays data across all properties, keeping everyone on the same page.

Test data at their fingertips. Up-to-date test data keeps managers in the loop on milk stats, soil tests, weather and soil information, as well as pasture cover readings.

The field is your office. Data and apps on smartphones and tablets let farm managers access the information they need in the field, instead of being tied to a desk.

Troubleshooting made easy. If the irrigation system goes outside preset limits, farm managers are alerted by text in real-time. Small problems can be quickly fixed before they become big problems.

How we helped Wairarapa Moana get ready for better business

- With a central point for information connecting all farm facilities, farmers can manage and monitor critical factors on smartphone and tablet without the clutter of paperwork.

- Vodafone's mobile technology delivers a stream of real-time information to facilitate smarter and faster decisions.

- Automated data entry cuts work hours and reduces errors.

- Vodafone's convenient 'one bill' system simplifies the multi-site service system.

- File sharing technology and smart apps allow Wairarapa Moana to cut meeting times and ensures decisions are based on reliable information.

To find out how Vodafone can help you become a Ready Business, contact your Account Manager or call 0508 249 777.

Miraka is a Ready Business

Ready to keep business moving.

Vodafone
Power to you

Miraka is making a splash in the milk powder business, thanks to its focus on mobile technology. They've built a $US 200 million export business from scratch.

First up, they had to build a $90 million dollar factory and create an efficient system for collecting milk from 98 suppliers. Then they had to develop their international business connections in order to build market share overseas. With help from Vodafone, they've succeeded at every stage.

Miraka is milking the possibilities of mobile technology

The company's brand new milk powder production facility was constructed with 30-centimetre thick walls. When staff found these solid walls blocked mobile calls, Vodafone solved the problem with two indoor repeater devices to boost cellphone coverage. Out on the road, six milk tankers use EROAD GPS mobile technology to manage truck movements while lowering their running costs and emissions. And when their executives travel overseas, they rely on Vodafone's cost-effective Daily Roaming plan to keep mobile charges to a minimum while always staying in touch.

What they did differently

Ending the landline dash. Two Vodafone repeater devices mean that the 27 milk factory staff at Miraka can take calls anywhere on site, instead of dashing for the nearest desk or missing the call.

Smarter fleet management. EROAD GPS mobile technology lets Miraka plan milk collection routes for maximum efficiency.

Sustainability is built-in. The Vodafone-enabled EROAD system allows Miraka to cut costs and emissions from its vehicle fleet to the absolute minimum.

Taking on the world without taking on extra overheads. When the Miraka team travel overseas to build relationships with partners and customers, they can take their smartphones and tablets for 24/7 connectivity. Thanks to Vodafone's Daily Roaming plan, they won't be stung with unexpected roaming charges.

How we helped Miraka get ready for better business

- When Miraka realised they'd built a factory that was a mobile calling blackspot, we installed two indoor repeater devices to boost signals on-site.
- As a result, Miraka staff can make and receive calls any time — they're not tied to the desk.
- Vodafone technology and the Vodafone network play crucial roles in the EROAD vehicle tracking and management system.
- Live data on truck movements and locations enables Miraka to keep a lid on operating costs.
- International roaming with Vodafone helps the exec team build networks and markets overseas — and Vodafone Daily Roaming means no nasty surprises on the phone bill.

To find out how Vodafone can help you become a Ready Business, contact the Australian Vodafone M2M team on 1300 576 071.

VHA IoT Learnings from NZ Fieldays 2016

Our commitment to Rural New Zealand

We have been making huge improvemments to Rural Broadband & mobile services right across New Zealand

{CIC]

[CIC]

[CIC]

[CIC]

Our mobile coverage solutions for rural areas

Talk to us about a coverage solution that's right for you

Customer needs

Area covered

	Home	Small farm	Large farm	Extended farms	Rural community
Up to 30m	Residential Sure Signal	Enterprise Sure Signal			
Up to 200m			Mini Repeaters		
Up to 500m			Outdoor Femtocells		
Up to 1km				Small Cells	
Up to 5km					Macro Repeaters

Our coverage solutions for rural areas

Extended farms

4G Small Cell delivers a 4G mobile signal across your farm or to remote locations.

- Up to 1000 metres of 4G coverage for up to 720 users, indoor or outdoor
- 4G Small Cells are high-speed data only. 3G Small Cells include data and calling
- Requires a Fibre, Microwave or Satellite connection

4G Small Cell

Home

Residential Sure Signal $49

Residential Sure Signal will create a 3G signal throughout your home using your Vodafone fixed broadband.

- Up to 30 metres of 3G coverage for up to 8 users, indoor only
- Gives you more bars on your mobile and enhanced call quality

Residential Sure Signal

Small farm

Enterprise Sure Signal $1,206

Enterprise Sure Signal will create a 3G signal across your farm using your Vodafone fixed broadband.

- Up to 120 metres of 3G coverage for up to 32 users, indoor or outdoor
- Gives you more bars on your mobile and enhanced call quality

Enterprise Sure Signal

Large farm

Femtocell will create a 3G signal across your farm.

- Up to 500 metres of 3G coverage for up to 32 users, indoor or outdoor
- Gives you more bars on your mobile and enhanced call quality
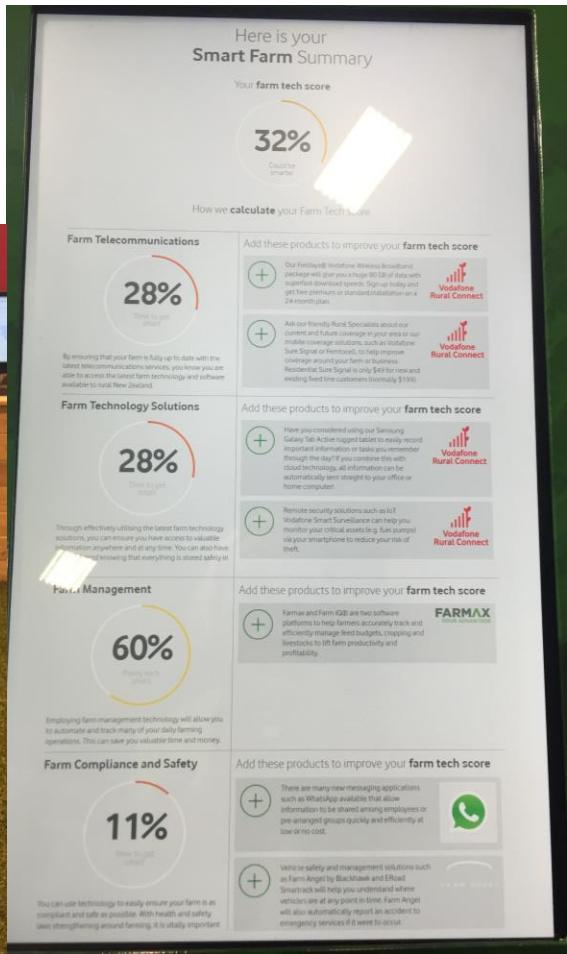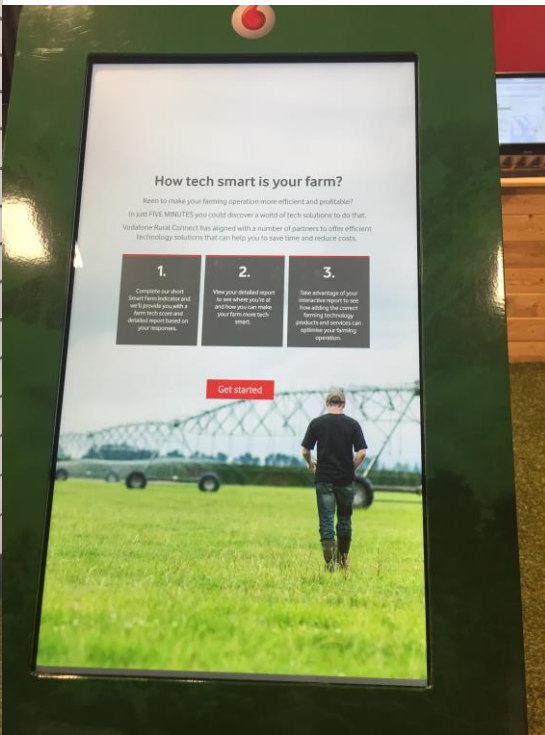- Requires a VDSL, Fibre or Satellite connection

Femtocell
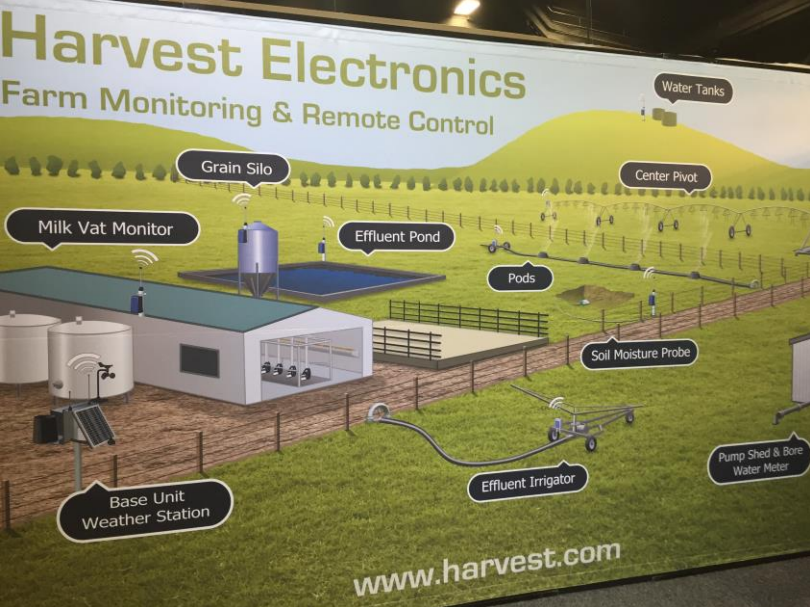
Coverage solutions for rural areas

[CIC]
-

[CIC]

[CIC]

-

[CIC]

-