

Submission in response to the ACCC Domestic Mobile Roaming Declaration Inquiry Discussion Paper Oct 2016

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Introduction and Summary: Changes in Market Expectations and Increasing Market Power

Macquarie Telecom Group welcomes the opportunity to comment on the proposal to declare mobile roaming.

Macquarie Telecom was founded in 1992, providing communications services to medium sized corporate and government customers. Macquarie Telecom is today the name of the business unit in the Macquarie Telecom Group which provides telecommunications services to Corporate customers.

Macquarie Telecom is a full service, national carrier and retailer. We combine our own core and access network elements with a national Network Operations Centre, locally based Australian customer contact centre, three data centres, accredited under ISO and ASIO security assessment regimes, with wholesale carriage, fixed line access and mobile voice and data services to provide complete communications solutions to our customers.

Macquarie Telecom [REDACTED]. It currently relies entirely on an effective and competitive wholesale market to be able to offer the mobile voice and data components of customers' communications packages.

Mobile services are now integral to corporate customers' communications needs. They are increasingly fully integrated with their data applications used by many staff and are imbedded in remote "Internet of Things" asset management systems.

Macquarie Telecom has had a policy in the past of seeking to provide its clients with the maximum flexibility and choice by putting in place wholesale arrangements with all three mobile providers so that customers could seamlessly manage a mobile fleet comprising all three mobile networks depending on their employees' individual requirements and to assist them control their costs of doing business.

[REDACTED]

Telstra has utilised the transition to 4G to cement its geographic coverage advantage and to leverage the promise of higher broadband speeds to the point [REDACTED]

[REDACTED]

[REDACTED]

As Telstra's market power has increased, so has its conduct exploiting this advantage increased to the detriment of competitors in corporate markets, such as Macquarie Telecom. It has done this by the condition and constraints it puts on access to its wholesale services, reducing the ability to competitors to take full advantage of their own investments and to enable better performance and coverage for its own retail mobile business.

Below is a graph setting out underlying MNO connection that Macquarie Telecom has activated over the 2 and ½ years and clearly shows the strength of demand for the Telstra MNO network notwithstanding the price and functionality restrictions that are imposed on MVNOs, like Macquarie Telecom by Telstra.

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The Case for Regulation

Macquarie Telecom submits that the regulation of access to mobile networks is justified by on-going conduct by Telstra and its impact on the long term interests of end users in regional and national markets, including in corporate markets.

Anti-competitive conduct is on the rise. Changes in customers' behaviour combined with new technologies has resulted in applications that are agnostic to underlying networks. This also means anti-competitive conduct in mobile markets is not only a problem in retail mobile services markets but increasingly is becoming a contagion undermining competition across many other markets.

The case for regulatory intervention in mobile markets is overwhelming and the arguments against flimsy.

The ACCC appears to be considering what could be described as a minimalist approach to regulation, focused on regions. Macquarie Telecom has serious reservations about whether this will resolve issues in the medium term, although it would clearly be both an important signal to the incumbent, and could provide relief for some retail consumers presently most disadvantaged.

The Commission offers for discussion a number of potential regulatory approaches that Macquarie Telecom would describe as minimalist. We submit that the nature of the issues existing today and still emerging would justify a more interventionist approach.

However, of the alternative approaches the Commission presents in the Discussion Paper, a national roaming service should be declared and a competition test applied that excludes regulation from some locations where there are three competing networks.

This would be consistent with the Commission's approach to regulation of other bottleneck services such as DTCS.

The competition test should focus on the availability of coverage from at least three underlying networks in a geographic location. Again, this would be consistent with the Commission's past decisions.

However, Macquarie Telecom believes the Commission should consider carefully what form of regulation would most effectively lead to sustainable competition, would most effectively reverse the underlying trend toward a less competitive "reseller" market rather than true wholesale, and bring market conduct more in line with that in overseas markets.

In particular, it is of great concern that Mobile Virtual Network Operators in Australia both have a lower market share than in comparable countries and are forced to operate with less ability to differentiate their services. Macquarie Telecom submits that this is a conscious strategy by MNOs.

It means the Australian wholesale mobile market is moving to become, in effect, only a reseller market, and does not exhibit the characteristics of a genuine MVNO market.

It is doubtful that simply declaring a roaming service will create a change in market dynamics sufficient to ensure Australian consumers enjoy the benefits of a market as dynamic as that observed in almost every other developed country. This will in turn constrain competition across all markets as convergence continues.

Macquarie Telecom has raised concerns directly with the ACCC about anti-competitive conduct by Telstra under Part XIB of the CCS Act in relation to, firstly, its refusal to supply and, subsequently, the conditions and limits it placed on access seekers to its wholesale 4G mobile services.

The consumers who have been the most conspicuously disadvantaged by the lack of effective competitive and investment are those who live in or regularly travel through regional locations. However, it is increasingly clear that Telstra is systematically leveraging its dominant position in retail mobile markets to undermine competition in other markets, notably corporate markets.

Apart from providing access to a lower quality and less geographical extensive service to its wholesale customers, Telstra's conduct also denies Macquarie Telecom from continuing to fully utilising its own network investment to provide services to its own customers in the most efficient manner.

Macquarie Telecom submits that this behaviour provides a powerful insight into the dysfunction in mobile markets that have resulted in Australian mobile wholesale markets being out of step with international developments.

Trends in Communications Markets

There is a key ongoing trend in communications markets, which has been developing for some years, for growing complementarity in fixed and mobile networks.

This is largely driven by consumer interest in an increasingly seamless experience wherever they go, without having to think about the best way to get a service, such as manually diverting traffic on to a local wifi network.

This trend has been given impetus by efforts by mobile service providers, in particular, to minimize the costs, and demands on spectrum, of meeting consumer needs, in particular by 'handing off' mobile traffic on to wifi wherever possible. This trend provides an important insight for the observation that mobile traffic is growing and fixed traffic is declining, and that mobiles are increasingly preferred over fixed lines for voice services.¹

Fixed and Mobile Bundling and the Role of Wifi

Service providers are likely to increasingly offer bundled bucket plans attached to a hand-set that will include a fixed residential service (including applications of choice), a mobile service and access to secure wifi networks in key locations.

Already, consumers widely hand-over traffic on to their home wifi networks when they can. We can expect to see this practice extending to wifi networks outside the home, made available by the service provider.

Increasingly, technology will look after handovers and the choice of which network is used, rather than relying on users to make manual handovers to suitable networks. The ACCC's Market Review Issues Paper's observation that Telstra with its Telstra Air network, and other service providers such as iiNet, have already deployed wifi infrastructure is an important step in this trend (at Para 7.23).

This trend will substantially shift the trade-off between mobility and network costs.

Consumers value mobility but the spectrum and physical infrastructure needed for cellular mobile networks is substantially more expensive than fixed networks on a data transmitted basis. In particular, data throughput drives higher costs on cellular mobile networks to a much higher extent than for fixed networks.² Increasing data demands by consumers on the move will exacerbate these pressures.

Service providers able to hand-over traffic from the cellular network to a wifi extension of a fixed network will be able to reduce pressure on their cellular

¹ ACCC, *Competition in the Australian Telecommunications Sector 2014/15*, Feb 2016, p.14.

² Current, relatively high, NBN CVC prices may risk undermining this point, at least until CVC prices settle to a sustainable costs-based level in the longer term. At present, relatively high CVC prices risk distorting decisions to allocate traffic between fixed and cellular networks. But none of this derogates from the fundamental point that the costs of transmitting data have always been substantially lower on fixed networks compared to cellular networks, driving the overwhelming proportion of traffic to fixed networks. These fundamental economic drivers are unlikely to change in the future even with changing technology – if anything, the cost advantage of fixed networks is likely to strengthen.

network, improve service standards and substantially reduce costs, providing that service provider with a strong competitive advantage. Thus, the 97% share of data transfer held by fixed networks (Para 8.7) is more likely to increase rather than diminish (provided that fixed-line wifi services are not mistakenly confused with mobile services).

A number of other trends have been identified in the Market Review Issues Paper. These include:

- Increasing substitution to cellular mobile network services at the expense of fixed network services;
- Network competition on the fringes of technological and geographical service provision by the NBN network; and
- Increasing consumer reliance on mobile handsets for voice services.

These trends are entirely consistent with the broader trend outlined above, and it is the broader trend that is likely to best explain the ways that competition is developing in communications markets.

Thus, one of the key issues is not that cellular network performance might approach the standards of fixed services in many circumstances, and therefore represents a competitive threat, but that the cost differential between data transfer on fixed networks vis-à-vis cellular networks is likely to increase rather than diminish.

With consumers continuing to dramatically increase demand for data, and even with improving mobile network technologies, service providers will look to relieve pressure on cellular networks without compromising mobility and service quality.

Developing more ways to hand-off to fixed networks is likely to provide at least a large part of the solution.

Mobile Virtual Network Operators (MVNOs)

MVNOs have played a limited role in communications markets in Australia. MVNOs have entered the market on numerous occasions with the support of one of the Mobile Network Operators (MNOs), but have failed to thrive: tending to grow to a certain threshold level of a few percentage market share before usually being absorbed back into the supporting MNO. As the Commission has observed, there are currently over 30 MVNOs in the market at present representing in aggregate around 10% market share.

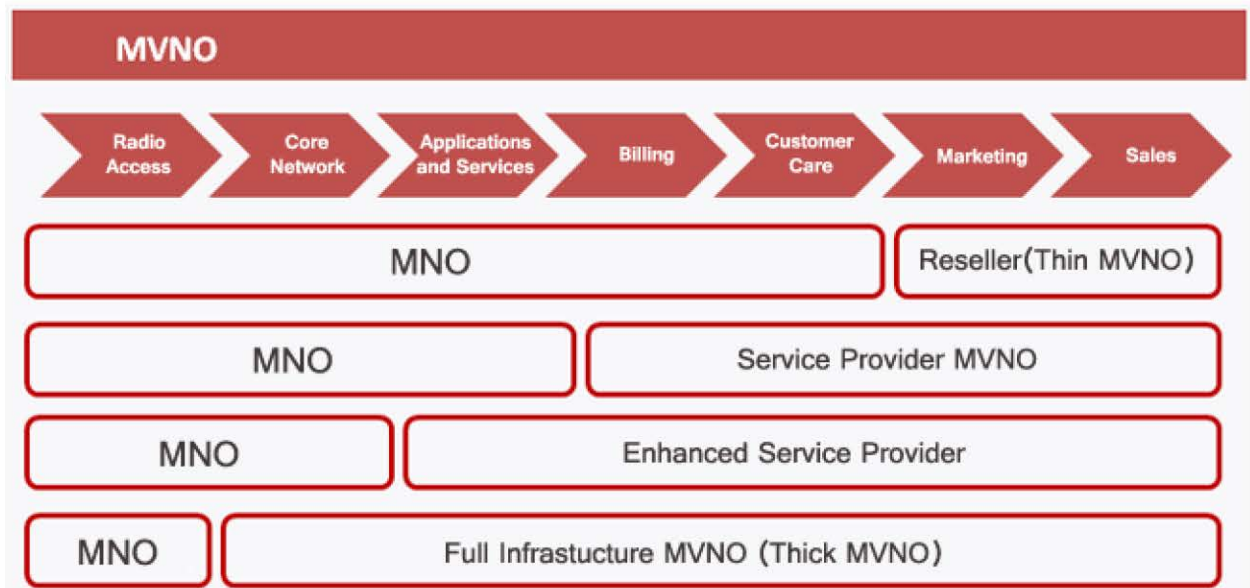
This appears to be at the lower end of market share for MVNOs internationally, suggesting MVNOs are not exercising the competitive impact in this market they are in others, particularly in the EU.¹

In other markets, a combination of commercial drivers acting on MNOs seeking to maximise returns on investment in mature and more competitive mobile markets and strategic policy and regulatory intervention have created much more active MVNO markets.

MVNOs provide MNOs an opportunity to sell differentiated products, perhaps at lower prices with diminished service quality, without impacting adversely on the MNOs brand. However, there have been suggestions that, for MNOs, supporting a MVNO for a period of time is a cost-effective means of securing market share without putting the brand position of the supporting MNO at serious risk.

Any such conduct risks limiting the ability of MVNOs to compete effectively and undermining the prospect of competitive pressure from MVNOs in the long term. Such conduct would also undermine the prospect of a MVNO becoming an effective partner in bundled service offerings. The same would apply to any other MNO conduct that effectively limited the growth and/or survival of MVNOs in the long term.

Figure 1



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As Figure 1 illustrates, there are numerous business models captured within the broad definition of MVNO. The least beneficial in a competitive sense is the first, which is in effect a simple reseller model. This arguably should not be considered an MVNO arrangement, as the reseller has no real capacity to differentiate the service available to consumers.

Recent developments in the Australian market, however, have acted to push MVNOs into a reseller model where they are unable to leverage their own

investments to maximise efficiencies on their networks nor transform the services they offer.

These constraints include; restrictions on the use cases able to be offered to customers (e.g precluding machine to machine), restrictions on network coverage and performance, and restrictions on the ability to manage and balance the data usage across an MVNO's user base.

It must be asked why this is the case in the Australian market. Macquarie Telecom submits Australia faces a unique set of circumstances where Telstra has been allowed and in fact encouraged through direct public subsidy and regulatory forbearance to establish market power in the form of greater geographic coverage.

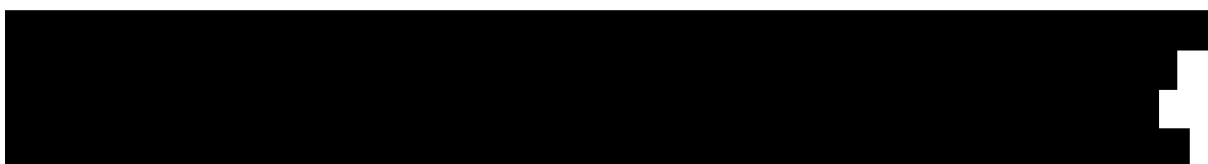
Telstra has extended its network into geographic areas that Telstra itself claims are uneconomic and hence has received taxpayer subsidy. In the absence of effective competitive conditions on these grants or regulatory intervention, it has leveraged this extended footprint to claim its network is unique and premium against other MNOs, as well as leveraging into more competitive markets, such as corporate and government markets, where service bundles and mobile data availability are increasingly demanded as part of retail bundles.


Restrictions on Network Management Controls

A crucial development has been the constraints Telstra, in particular, has applied to the business of wholesale customers by requiring them to move to a new wholesale platform. This platform severely limits their ability to manage data usage across their mobile customer base. In effect, wholesale customers are no longer able to manage data usage by switching monthly consumption between users of a single corporate customer, moving them toward no more than a "white label" wholesale model.

These changes to the contractual arrangements faced by wholesale customers were imposed by Telstra when it introduced its 4G wholesale service.

Telstra first delayed the introduction of a wholesale service. MVNOs were forced to respond to consumer expectations of access to the new technology, which Telstra had already introduced and heavily promoted as a retail service, but had no bargaining power to insist that conditions pertaining to the wholesaling of 3G were carried over.





With competitors facing a rapid erosion of their customer base with the delays in access to 4G, Telstra was able to force them to accept diminished services and to invest in new software platforms to be able to acquire, provision and maintain 4G services.

As described above, the effect of this is to push MVNOs toward being mere resellers of existing MNO end-to-end services, rather than being able to perform a more fundamental competitive role leveraging their own network investment combined with selected disaggregated MNO services to more efficiently meet their customers' needs.

It means the management of the mobile component of a typical corporate customer's bundle of services sits apart from the fixed line components in every sense, even in an environment where, as discussed above, user expectations and conduct, and data traffic carriage technologies have converged.

This change was imposed on MVNOs who had no power to negotiate to retain the previous arrangement that provided more control to maximise efficiency in service delivery. The new wholesale delivery platform was designed to meet the needs of "white label" resellers, such as consumer retailers Aldi and Woolworths, who are exclusively targeting low value mass consumer markets and have no intention of investing in telecommunications infrastructure to create innovative or differentiated services.

Coverage and Performance Restrictions

Telstra does not offer coverage or performance to users of its wholesale 4G equivalent to its own retail service. Initially, it offered geographic coverage of 91 percent of the population compared to a claimed 98 percent for its retail mobile offering. The wholesale coverage was increased to 94 percent after the ACCC announced its intention to conduct this inquiry into roaming.

Telstra was also not providing wholesale access to at least some of the towers funded under the Federal Government's Mobile Blackspots program.

Machine-to-Machine Communications

There are similar issues which undermine competition in machine-to-machine services. These services often rely on wholesale cellular services to package a retail offering. Data throughput is usually low, so a bundled offering with a substantial data inclusion is unnecessarily costly and, of course, inclusion of a

voice service component is redundant. Examples of retail services that rely on a wholesale cellular service include:

- commercial fridges capable of ordering new supplies when needed;
- remotely readable metres; and
- remotely operated farm equipment.



All of this conduct has been observed in the context of Telstra taking advantage of the network upgrade from 3G to 4G to further embed its competitive advantages and to actively “manage” the shape of competition in retail markets.

While its conduct has been blatant in its intent and aggressively executed, it has gone unchecked by the Commission.

The deployment of 5G upgrades across the Telstra network is imminent. If the Commission again forebear any regulation of mobile market in the context of this review, it would in effect be endorsing Telstra's actions to shape downstream competition as it wishes.

Overseas Regulatory Arrangements

In other jurisdictions, regulators have explicitly recognised that MVNOs are likely to be called upon to perform an important role in competition in communications markets in the future. If the trends in service bundling outlined above continue, a mobile service will be an important, if not essential, inclusion in service offerings.

With only three MNOs in Australia, and little likelihood of a fourth³, there is a risk that this will drive all communications markets to only three service providers. The availability and survival of one or more MVNOs would alleviate this risk, by providing an option for smaller service providers to include a mobile service offering in their bundles without being reliant on one of the three MNOs.

³ Following the ACCC's acceptance of the Vodafone/Hutchison merger, there seems little likelihood that the Australian mobiles market could economically support another fourth operator.

In this context, any trend by MNOs to reduce the flexibility of MVNOs by limiting them to existing end-to-end MNO services is a serious setback to future competition prospects.

Regulatory and policy initiatives in other markets has focused on expanding the enhanced service provider and "Thick MVNO" models of operation by giving MVNOs more ability to leverage their own investment to innovate and transform at the retail service layer offering.

In Ireland and Germany, regulators required a portion of network capacity to be made available to MVNOs before allowing MNO mergers to proceed.

In Malaysia the regulator has proposed to prohibit MNOs from requiring MVNOs to enter exclusivity arrangements.

In Canada, the regulator has moved to regulate wholesale roaming obligations and rates on the basis that there is insufficient competition.

In Romania, the regulator requires that a "mobile operator's solution of access to its network must allow an efficient economic operation, must provide non-discriminatory conditions in terms of service quality, compared to those enjoyed by the mobile network operator for its own services."

In all of these jurisdictions, the regulators have or are establishing conditions that allow MVNOs to increasingly operate with a greater degree of flexibility than is available under simple resale arrangements, the opposite of what is presently occurring in Australia.

Responses to Selected Specific Issues Raised in the Discussion Paper

MNVO investment (Qs 40 and 41).

The Commission questions whether the declaration of a roaming service would cause MNOs to cease investing in extending their network coverage. Macquarie Telecom submits that this risk is minimal given the heavy public subsidy investment in mobile network extension programs over the past decade, and on-going through the Mobile Black Spots program.

This history of reliance on subsidy suggests networks have reached their maximum efficient size and declaration will have no impact on further investment.

This is true of both MNO roaming access seekers and access providers, given that all three MNOs operating in Australia have applied for and received subsidy under the Mobile Blackspots program.

Macquarie Telecom believes the biggest inhibitor to further investment in mobile networks is a lack of competitive pressure rather than regulation. Telstra has shown through its past behaviour in fixed networks, particularly in regional areas, that it upgrades networks in response to competitive entry. For example, Telstra only upgraded its exchanges to deploy ADSL2+ capability in the mid 2000s as competitors took advantage of regulated access to ULLS to deploy that technology.

Telstra resistance to infrastructure sharing through commercial arrangements must also raise questions about its motivation. As networks reach locations where the population density is insufficient to sustain more than one commercial network, and as that network itself reaches the limits of commerciality, the network owner should have been seeking to maximise usage. In other countries, this has caused MNOs to invest jointly in underlying infrastructure, or to create new revenue streams through commercial roaming agreements.

That Telstra so steadfastly refuses to engage in such discussions, but instead uses public subsidy to expand its footprint while aggressively marketing its coverage advantage, suggests it is not motivated by a desire to leverage regional coverage to capture metropolitan customers.

This means it has no incentive to accept that the most efficient model for further investment in regions is through infrastructure sharing. Only regulatory intervention to require this would create an environment where regional customer might enjoy new commercial network expansion.

Overseas experience also suggests that regulation of roaming does not cause investment to fall. Macquarie Telecom is aware of data provided by Vodafone that suggests capital investment in a range of countries has either shown no fall or even tended to increase after the regulator intervened in mobile markets through mandating roaming or other forms of network sharing.

In the US, the FCC considered exactly these issues in response to representations from MNOs that they would face reduced incentives to invest if they were required to provide roaming access. The FCC rejected these representations and, in moving to regulate, said it expected investment would be encouraged rather than reduced.

For these reasons – evidence that the extent of commercial geographic footprints have been reached, past experience with regulation, investment and competition in Australian communications services markets and, evidence from overseas – the Commission should disregard threats of “investment strikes” in retaliation to proposed roaming regulation as lacking credibility and relevance to the situation presently facing mobile markets in Australia.

Importantly, a large part of any infrastructure investment in regional areas has been publicly funded through the Commonwealth Government's Black Spot Funding Programme. It has not been generated directly and independently by the MNOs.

The most recent Black Spots Funding yet again confirms the fact that regional coverage is at best possible with two MNOs, but in practice really a one horse race. Telstra receives the lion's share of funding precisely because it is not efficient to fund any other MNO to go beyond the Optus or Telstra footprints.

The inability of VHA to attract anything other than very modest funds reflects the competitive disadvantage that the inherently under-scale Australian mobile market delivers absent mobile roaming access regulation on the Optus and Telstra networks. The most recent funding round essentially increases the monopoly regional status of Telstar via payment of public funds to private sector with all the market distortions that flow from unregulated monopoly including lack of customer choice, high prices and poor service.

Q19. Is the extent of competition for mobile services in regional areas likely to change in the future in the absence of regulation?

It is likely competition will be further constrained over time. The introduction of 4G was used by Telstra as an opportunity to force access seekers onto a new contract and different wholesale delivery platform.

Telstra delayed introducing wholesale 4G services for many months after releasing its retail product.

The contract precluded access seekers from regulatory recourse, provided constrained network performance and coverage compared to Telstra's retail service, and reduced the ability of access seekers to manage traffic using their own network investments. In effect, MVNOs were forced by customer expectations to allow customers to move from 3G services, but in moving customers to the 4G network, MVNOs were in effect reduced to resellers.

The imminent introduce of 5G services can be expected to see Telstra take the opportunity to again delay introducing wholesale services and to apply further constraints on wholesale products. The mobile reseller market in Australia increasingly operates only to allow MNOs to capture low value customers to their networks without diluting their own brands. The wholesale services are introduced only when the MNOs determine they have captured the higher value market.

Q23 To what extent do consumers in regional areas benefit from competition in the national retail mobile services market?

Economic opportunities for residents and frequent travellers to regional Australia are directly undermined by the lack of competition in mobile services. The inability of competitive operators to either provide a full suite of communications services to corporate customers in regional locations, or to be unable to provide them at reasonable costs, artificially raises the costs of all businesses in those locations.

In addition to these higher costs of doing business, wholesale customers are contractually precluded from offering machine to machine mobile communications.

These emerging services are arguably more important to consumers and businesses in regional Australia where remote monitoring is essential due to large geographies, dispersed populations, the greater transportation challenges and the types of industries (particularly agriculture).

Importantly, many emerging technologies in health care rely on Internet of Things technologies. The businesses introducing these innovations face a dysfunctional communications market in regional locations where the benefits of their products and services are likely to be greatest, potentially delaying, preventing or making less affordable their entry into those locations.

Q25 How important is geographic coverage, as opposed to population coverage, to consumers living in metropolitan areas? And Q27 Does the level of geographic coverage on a network impact a provider's ability to compete for business customers to a greater extent than other customers?

Geographic coverage is crucial for an increasing number of corporate customers. This is due to the trend toward convergence of applications on mobile devices and new applications and technologies such as remote monitoring.

Level 15
2 Market Street
Sydney NSW 2000
T 02 8221 7777

Level 10
251 Adelaide Terrace
Perth WA 6000
T 08 9229 0000

Level 16
477 Pitt Street
Sydney NSW 2000
T 1800 789 999

Level 1
441 St Kilda Road
Melbourne VIC 3004
T 03 9206 6800

Level 7
54 Marcus Clarke Street
Canberra ACT 6277
T 02 6257 6277

17 – 23 Talavera Road
Macquarie Park NSW
2113
T 02 8221 7256

Level 15
127 Creek Street
Brisbane QLD 4000
T 07 3874 2300

ⁱ McKinsey & Co Virtually mobile: What drives MVNO success By: Jukka Lehtikainen /// Pierre Pont /// Yannick Sent

ⁱⁱ <http://veridian.ro/aboutmvno/mvno-operational-models/?lang=en>