



**PUBLIC VERSION**

# **DOMESTIC MOBILE ROAMING DECLARATION INQUIRY**

**PART C OF THE SUBMISSION BY  
VODAFONE HUTCHISON AUSTRALIA**

**SUPPORTING EVIDENCE PROVIDED BY VHA**

**5 December 2016**

# Summary

This document contains Part C of Vodafone Hutchison Australia Pty Limited's (ABN 76 096 304 620)(“VHA”) submission in response to the Discussion Paper issued by the ACCC titled *Domestic mobile roaming declaration inquiry*.

Part C of VHA's submission comprises:

- (a) a summary of the evidence provided by VHA in support of Part A and Part B of VHA's submission;
- (b) a summary of VHA's analysis that Telstra's refusal to supply roaming in the Telstra network monopoly areas is a misuse of market power in contravention of the *Competition and Consumer Act 2010 (Cth)*, hence is demonstrably anti-competitive; and
- (c) an overview of the manner in which roaming is regulated in other comparable jurisdictions, including any insights for the regulation of roaming in Australia.

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# 1. Independent expert reports

## (a) Expert and economic evidence

VHA has engaged independent reports from the experts to address various issues raised by the ACCC in its questions and by VHA in its submission.

A tabulated summary of this economic evidence is as follows:

<b>Expert</b>	<b>Independent evidence</b>
Compass Lexecon (Dr Derek Ritzmann)	<ul style="list-style-type: none"><li>• Existence of natural monopoly in regional mobiles</li><li>• Existence and significance of spillover effects</li><li>• Investment effects are trivial and can be mitigated</li></ul>
Richard Feasey, Telecoms Consultant	<ul style="list-style-type: none"><li>• Competitive incentives in different coverage areas</li><li>• Positive welfare benefits to consumers of roaming</li><li>• Implications of different terms of declaration</li></ul>
Centre for International Economics (CIE)	<ul style="list-style-type: none"><li>• Telstra's estimated market premium for mobile and fixed-line services</li></ul>
Frontier Economics (Warwick Davies, Economist)	<ul style="list-style-type: none"><li>• A review of appropriate methodologies for setting regulated prices for access to a domestic mobile roaming service</li></ul>

## (b) Independent expert report by Compass Lexecon

### *Nature of engagement*

VHA engaged Dr Derek Ritzmann of Compass Lexecon under the strict conditions for engagement of 'clean' independent experts under the Federal Court Rules. This engagement occurred through Norton Rose Fulbright as external legal advisors to VHA.

Compass Lexecon was asked to provide a report on three specific issues raised by the ACCC. The engagement was confined to providing the report and Compass Lexecon was not otherwise involved in the preparation of this submission.

A list of the material reviewed by Dr Derek Ritzmann is attached to his report. Some of this material is confidential to VHA.

### ***Terms of engagement***

Compass Lexecon was asked to advise on the following questions:

- ***Natural monopoly.*** Is the supply of mobile telecoms services in regional Australia subject to a natural monopoly? If so:
  - (1) what are the salient features (including geographic scope) of this natural monopoly?
  - (2) are the natural monopoly areas contestable in the absence of regulation?
  - (3) what are the key implications for efficient investment in, and use of, regional mobile infrastructure?
  
- ***Spillover effects.*** If a natural monopoly exists in areas of regional Australia, what impact (if any) is that natural monopoly having on the supply of mobile services in Australia outside the natural monopoly areas? To the extent any impact arises:
  - (1) what is the nature of that impact and the causal mechanism by which that impact arises?
  - (2) how is that impact affected by the existence of a uniform national price?
  - (3) what are the long-term welfare implications for end users?
  
- ***Impact of declaration.*** Assuming the supply of mobile roaming services is mandated in areas of regional Australia with less than three mobile networks, what impact is such mandated supply likely to have on efficient investment in, and use of, mobile network infrastructure? In particular:
  - (1) would mandated roaming encourage efficient investment in infrastructure?
  - (2) would mandated roaming encourage efficient use of infrastructure?
  - (3) to the extent any detriments may arise, can they be mitigated by appropriate wholesale pricing and/or delaying the wholesale supply of upgrades or new sites?

## ***Conclusions***

Dr Derek Ritzmann's key conclusions are:

- ***Natural monopoly:*** the supply of mobile telecommunications in regional Australia is likely to be a natural monopoly in those areas with thin populations spread over wide areas. This conclusion is based on my examination of the supply costs and demand profiles for mobile telecommunications services in representative regional areas of Australia. More broadly, there is likely to be a strong general relationship between the economic viability of duplication of those facilities in a geographic area and the population density of that area. This means that, in addition to the natural monopoly areas, there are also areas where the duplication of facilities is theoretically feasible but where infrastructure-based entry is unlikely to be economic (and therefore unlikely to emerge in practice); this is due to the high sunk fixed costs of entry, network effects, and the requirement to capture large market share for viability which give rise to high risks of entry. Infrastructure-based competition is unlikely to emerge in these natural monopoly and non-contestable areas.
- ***Spillover effects:*** there are likely to be competition spillover effects from the natural monopoly and non-contestable areas into the potentially competitive, genuinely contestable areas. Customers who require regional coverage must choose a provider who can supply coverage in the entire "bundle" of regions. The consequent horizontal bundling or tying effect helps Telstra to leverage its market power from the natural monopoly and non-contestable areas into the contestable areas. This bundling mechanism for leveraging of market power, well recognized in the literature, softens competition in the contestable areas, including likely in urban areas. Telstra's uniform national price acts as a transmission mechanism to exacerbate this effect. An enhancement of competition in the natural monopoly areas would therefore also likely enhance competition in the competitive areas.
- ***Impact of declaration:*** Mandated access to roaming would likely encourage the efficient use of, and investment in, infrastructure in the natural monopoly areas and in the other non-contestable areas. In the natural monopoly areas, efficient use of the facilities would be encouraged by mandating the use of the facilities across the entire demand, in accordance with commonly accepted natural monopoly concepts. In the areas that are not natural monopolies but are in practice non-contestable absent regulation, mandated access would encourage the efficient use of facilities in the short-term before infrastructure-based competition is viable, and would encourage the efficient investment in infrastructure in the long-term by facilitating the long-term investment in competing infrastructure. Efficient incentives for the access provider can be maintained through appropriate wholesale access

pricing, and other targeted measures such as focused access holidays for certain new facilities, in the hands of an experienced regulator taking into account the appropriate incentives considerations.

## (c) Independent expert report by Richard Feasey

### *Nature of engagement*

[C-I-C]

### *Terms of engagement*

Richard Feasey was asked to provide advice on the following questions:

- What could be the regulatory basis for the ACCC declaring a domestic roaming service which encompassed areas where both Telstra and Optus may currently have coverage (or where Telstra and Vodafone or Optus and Vodafone might do so), as well as in areas where there is only a single, monopoly network provider, generally Telstra?
- How could the ACCC assess the competitive (and hence consumer) benefits from declaring a domestic roaming service?
- [C-I-C]

### *Conclusions*

Richard Feasey's key conclusions are:

- A declaration which required Telstra to provide domestic roaming on its monopoly network only (i.e. in those areas where only Telstra provides coverage today) would not alleviate these concerns. Telstra might face more effective competition from Optus, but Vodafone would still not be an effective competitor since consumers will not accept coverage in some areas but not others. Knowing this, Telstra would have strong incentives to withhold the supply of roaming in undeclared duopoly areas (i.e. where both it and Optus provide coverage, but Vodafone does not) and Optus would similar incentives.
- The consumer benefits that arise from such a declaration are difficult to quantify with precision. It is clear that a relatively small proportion of the total population – perhaps 2-3% - who currently have no choice of network provider would benefit from having such a choice. But they, and everybody else, benefit far more if competition in the metropolitan areas drives



Telstra's nationally averaged prices down to more efficient levels. That will happen if Vodafone and Optus (and the MVNOS which they support) are able to offer a service that is broadly equivalent to that offered by Telstra to all of those consumers who value network coverage but must rely on Telstra today. That amounts to about a third of the country's population. In addition, consumers who cannot afford greater network coverage at the prices which Telstra charges today (and who therefore subscribe to Vodafone or Optus instead) may be able to afford greater coverage under more competitive conditions.

- [C-I-C]

## (d) Independent expert report by The CIE

### *Nature of engagement*

VHA engaged The CIE to update its 2015 report on the price premium consumers pay for telecommunications services in Australia. The CIE was not involved in the drafting of VHA's submission.

### *Terms of engagement*

VHA engaged The CIE in 2015 to provide a report to identify the price premium consumers pay for telecommunications services in Australia (**2015 Report**).

VHA engaged The CIE to update the 2015 Report using updated information on retail offerings and market share information. The current report includes an estimate of the price premium for pre-paid mobile services which was not possible for the 2015 Report due to data availability.

### *Conclusions*

The key conclusions of The CIE's report are:

- The price premium paid by a Telstra customer is \$10 per month for a post-paid mobile plan, \$5 per month for a post-paid SIM-only mobile plan or mobile broadband plan, \$17 per month for a pre-paid mobile plan and \$18 per month for fixed line services.
- This premium amounts to a total of \$1.4 billion extra paid each year for Telstra mobile phone services and \$1.8 billion extra paid each year for Telstra fixed line services above the average price charged for the same services by other carriers.

- In regional areas, Telstra's premium has a greater impact because Telstra holds a greater proportion of mobile services market share and a greater proportion of services are pre-paid rather than post-paid.
- For a customer receiving only Telstra services, such as some regional customers, the price premium could be between \$270 and \$450 per household, depending on how many services they use.

## (e) Independent expert report by Frontier Economics

### *Nature of engagement*

VHA engaged Dr Warwick Davis of Frontier Economics to provide an independent expert report on the appropriate methodologies for setting regulated prices for access to a domestic mobile roaming service. Frontier Economics was not involved in the drafting of VHA's submission.

### *Terms of engagement*

VHA asked Frontier Economics to provide a report which considers the various methodologies used by the ACCC in past for setting regulated prices and then consider whether each of the methodologies are appropriate for setting regulated prices for access to a domestic mobile roaming service.

Frontier Economics were asked to have regard to the legislative objective of promoting the long-term interests of the end-user when assessing the appropriateness of each of the methodologies.

VHA did not ask Frontier Economics to comment specifically on the case for declaration.

### *Conclusions*

The main conclusions of the Frontier Economics report are:

- There are three main options available for setting a regulated prices for a declared domestic mobile roaming services: TSLRIC+, cost plus (using a Regulated Asset Base) and retail minus avoidable costs. Each of these options could be consistent with the LTIE legislative criteria and in particular providing Telstra with incentives to efficiently invest in infrastructure. An important consideration in the choice of method (or methods) will be the implementation costs of the different methods.
- Frontier Economics found that each of the methods will have a number of implementation challenges but none seem to be insurmountable. Frontier Economics found that there are strong arguments for the use of retail minus for a domestic mobile roaming service, particularly if the geographic scope of the determinations is limited.

## 2. Specific evidence requested by ACCC

### (a) Evidence of VHA's investment decisions

VHA has provided:

- [C-I-C];
- financial modelling evidence in response to Q14-15 which evidences that it is not economic for VHA to build network in regional Australia; and
- information on current mobile tower build decisions in response to Q41-42 which evidences current VHA decision to build network infrastructure in regional Australia in the circumstances where VHA is able to acquire roaming from Optus.

Dr Ritzmann's report critiques VHA's financial modelling which demonstrates a natural monopoly exists in regional Australia with respect to mobile networks.

### (b) Evidence of differences in regional and metro competition

VHA has provided:

- [C-I-C]
- financial modeling evidence in response to Q14-15 which evidence which evidences it is not economic for VHA to build network in regional Australia.

Dr Ritzmann's report critiques VHA's financial modelling which demonstrates a natural monopoly exists in regional Australia with respect to mobile networks.

Dr Ritzmann's report also concludes:<sup>1</sup>

"I conclude that the supply of mobile telecommunications in regional Australia is likely to be a natural monopoly in those areas with thin populations spread over wide areas. This conclusion is based on my examination of the supply costs and demand profiles for mobile

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<sup>1</sup> Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry Expert Report, 1 December 2016, page 4.

telecommunications services in representative regional areas of Australia. More broadly, there is likely to be a strong general relationship between the economic viability of duplication of those facilities in a geographic area and the population density of that area. This means that, in addition to the natural monopoly areas, there are also areas where the duplication of facilities is theoretically feasible but where infrastructure-based entry is unlikely to be economic (and therefore unlikely to emerge in practice); this is due to the high sunk fixed costs of entry, network effects, and the requirement to capture large market share for viability which give rise to high risks of entry. Infrastructure-based competition is unlikely to emerge in these natural monopoly and non-contestable areas.”

Mr Feasey also concludes:<sup>2</sup>

“I consider that competition in Australia’s retail mobile markets is ineffective as a result of Telstra’s refusal to supply roaming. A relatively small number of consumers in regional Australia have no choice of supplier at all, since Telstra is the only firm to offer them coverage. A much larger number of consumers in suburban and urban areas which appear to be competitive are also ‘captive’ to Telstra because they value network coverage which neither of Telstra’s rivals, Optus and Vodafone, is able to offer today. Both sets of ‘captive’ customers pay too much for their mobile services as a result. Another group which also values coverage simply cannot afford it at the prices charged by Telstra today.”

## (c) Evidence of spillover effects of Telstra network monopoly

The CIE report concludes:<sup>3</sup>

“The price premium paid by a Telstra customer is \$10 per month for a post-paid mobile plan, \$5 per month for a post-paid SIM-only mobile plan or mobile broadband plan, \$17 per month for a pre-paid mobile plan and \$18 per month for fixed line services.

This premium amounts to a total of \$1.4 billion extra paid each year for Telstra mobile phone services and \$1.8 billion extra paid each year for Telstra fixed line services above the average price charged for the same services by other carriers.”

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<sup>2</sup> Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 5.

<sup>3</sup> The CIE, Telstra’s Market Premium for Mobile Services, November 2016, page 1.

Dr Ritzmann concludes:<sup>4</sup>

“Moreover, there are likely to be competition spillover effects from the natural monopoly and non-contestable areas into the potentially competitive, genuinely contestable areas. Customers who require regional coverage must choose a provider who can supply coverage in the entire “bundle” of regions. The consequent horizontal bundling or tying effect helps Telstra to leverage its market power from the natural monopoly and non-contestable areas into the contestable areas. This bundling mechanism for leveraging of market power, well recognized in the literature, softens competition in the contestable areas, including likely in urban areas. Telstra’s uniform national price acts as a transmission mechanism to exacerbate this effect. An enhancement of competition in the natural monopoly areas would therefore also likely enhance competition in the competitive areas.”

Mr Feasey also concludes:<sup>5</sup>

“I consider that competition in Australia’s retail mobile markets is ineffective as a result of Telstra’s refusal to supply roaming. A relatively small number of consumers in regional Australia have no choice of supplier at all, since Telstra is the only firm to offer them coverage. A much larger number of consumers in suburban and urban areas which appear to be competitive are also ‘captive’ to Telstra because they value network coverage which neither of Telstra’s rivals, Optus and Vodafone, is able to offer today. Both sets of ‘captive’ customers pay too much for their mobile services as a result. Another group which also values coverage simply cannot afford it at the prices charged by Telstra today.”

## (d) Evidence of the Telstra price premium in mobiles

The CIE report concludes:<sup>6</sup>

“In regional areas, Telstra’s premium has a greater impact because Telstra holds a greater proportion of mobile services market share and a greater proportion of services are pre-paid rather than post-paid.

For a customer receiving only Telstra services, such as some regional customers, the price premium could be between \$270 and \$450 per household, depending on how many services they use.

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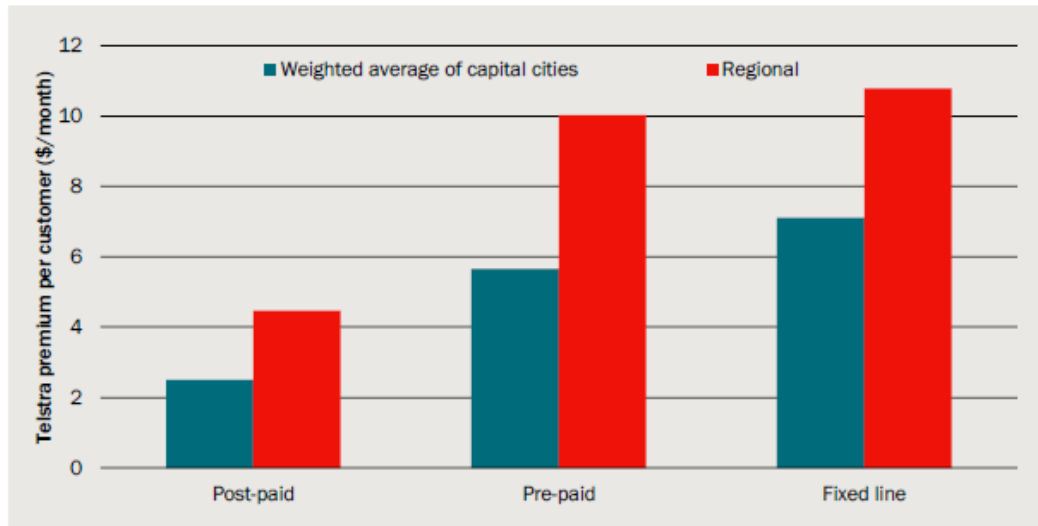
<sup>4</sup> Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry Expert Report, 1 December 2016, page 4.

<sup>5</sup> Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 5.

<sup>6</sup> The CIE, Telstra’s Market Premium for Mobile Services, November 2016, page 1-2.

Chart 1 shows Telstra's premium per customer for capital cities compared to regional areas. The premium per post-paid, pre-paid and fixed line customer is substantially higher in regional areas mainly because Telstra has greater market share in regional areas.

### 1 Comparison of Telstra's premium for mobile and fixed line services between capital cities and regional areas



Data source: The CIE.

The premium for mobile services is higher than similar analysis conducted by The CIE in 2015. In 2015, the Telstra premium for post-paid mobile services was estimated at \$9 per month per plan. The overall Telstra price premium has slightly increased since that study because of greater customer numbers and the inclusion of pre-paid services in the analysis that have a higher premium.”

## (e) Evidence of impact of declaration on competition

VHA has provided:

- [C-I-C];
- financial modelling evidence in response to Q14-15 which evidences it is not economic for VHA to build network in regional Australia; and
- information on current mobile tower build decisions in response to Q41-42 which evidences current VHA decision to build network infrastructure in regional Australia in the circumstances where VHA is able to acquire roaming from Optus.

The above demonstrates VHA's ability and incentives to invest in regional Australia in the limited number of duopoly areas where VHA is able to build a reasonable business case. VHA has not stopped deploying mobile infrastructure in regional areas where it currently is able to acquire roaming services. In addition, declaration will allow VHA to deploy mobile infrastructure and promote infrastructure based competition including in areas beyond Telstra's current network footprint.

Dr Ritzmann concludes:<sup>7</sup>

“Moreover, there are likely to be competition spillover effects from the natural monopoly and non-contestable areas into the potentially competitive, genuinely contestable areas. Customers who require regional coverage must choose a provider who can supply coverage in the entire “bundle” of regions. The consequent horizontal bundling or tying effect helps Telstra to leverage its market power from the natural monopoly and non-contestable areas into the contestable areas. This bundling mechanism for leveraging of market power, well recognized in the literature, softens competition in the contestable areas, including likely in urban areas. Telstra's uniform national price acts as a transmission mechanism to exacerbate this effect. An enhancement of competition in the natural monopoly areas would therefore also likely enhance competition in the competitive areas.”

Mr Feasey concludes:<sup>8</sup>

“The consumer benefits that arise from such a declaration are difficult to quantify with precision. It is clear that a relatively small proportion of the total population – perhaps 2-3% - who currently have no choice of network provider would benefit from having such a choice. But they, and everybody else, benefit far more if competition in the metropolitan areas drives Telstra's nationally averaged prices down to more efficient levels. That will happen if Vodafone and Optus (and the MVNOS which they support) are able to offer a service that is broadly equivalent to that offered by Telstra to all of those consumers who value network coverage but must rely on Telstra today. That amounts to about a third of the country's population. In addition, consumers who cannot afford greater network coverage at the prices which Telstra charges today (and who therefore subscribe to Vodafone or Optus instead) may be able to afford greater coverage under more competitive conditions.”

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<sup>7</sup> Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry Expert Report, 1 December 2016, page 4.

<sup>8</sup> Richard Feasey, Issues arising in relation to the ACCC's domestic roaming declaration enquiry, November 2016, paragraph 7.

## (f) Evidence of absence of choice in regional Australia

Key findings from the Empirica Research report include:<sup>9</sup>

- 59% of respondents agreed that mobiles will be more essential than fixed line in the next 5-10 years;
- 59% of respondents agreed that they would change providers if another provider of mobile services offered the same or better coverage as their existing provider;
- 80% of respondents agreed that competitive pricing is the most important aspect of a mobile provider;
- 83% agreed that being able to choose their mobile provider is important.

Key findings of the GA Research report include:<sup>10</sup>

- Mobile phones are generally considered a more essential service than fixed lines.
- Quality of customer service is the main driver of telco brand perceptions, with negative views dominated by issues with overseas call centres.
- Regional participants feel they are not receiving optimal mobile phone coverage, especially compared with their metropolitan counterparts.
- Telstra is seen as the 'devil you know', offering better mobile coverage than other providers, but at a cost.
- Participants found it difficult to decouple coverage and choice. Coverage is more like a foundation which must be in place to enable choice and fair competition.
- While participants know they have the option to sign up with other telco providers, due to coverage issues they do not feel they have a real choice. They also feel they have not experienced the improved services and lower costs that result from competition and choice.

Both the above reports are provided to the ACCC in **Part D** of VHA's submission.

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<sup>9</sup> Empirica Research, Telecommunications in Regional Australia, 2014, report prepared for Vodafone.

<sup>10</sup> GA Research, Regional Community Attitudes Research, March 2013, report prepared for Vodafone.



## (g) Evidence of Telstra's incumbent advantage

VHA has provided:

- [C-I-C]
- financial modeling evidence in response to Q14-15 which demonstrates it is not economic for VHA to build network in regional Australia.

Dr Ritzmann's report critiques VHA's financial modelling which demonstrates a natural monopoly exists in regional Australia with respect to mobile networks.

Dr Ritzmann's report also concludes:<sup>11</sup>

"I conclude that the supply of mobile telecommunications in regional Australia is likely to be a natural monopoly in those areas with thin populations spread over wide areas. This conclusion is based on my examination of the supply costs and demand profiles for mobile telecommunications services in representative regional areas of Australia. More broadly, there is likely to be a strong general relationship between the economic viability of duplication of those facilities in a geographic area and the population density of that area. This means that, in addition to the natural monopoly areas, there are also areas where the duplication of facilities is theoretically feasible but where infrastructure-based entry is unlikely to be economic (and therefore unlikely to emerge in practice); this is due to the high sunk fixed costs of entry, network effects, and the requirement to capture large market share for viability which give rise to high risks of entry. Infrastructure-based competition is unlikely to emerge in these natural monopoly and non-contestable areas.

Moreover, there are likely to be competition spillover effects from the natural monopoly and non-contestable areas into the potentially competitive, genuinely contestable areas. Customers who require regional coverage must choose a provider who can supply coverage in the entire "bundle" of regions. The consequent horizontal bundling or tying effect helps Telstra to leverage its market power from the natural monopoly and non-contestable areas into the contestable areas. This bundling mechanism for leveraging of market power, well recognized in the literature, softens competition in the contestable areas, including likely in urban areas. Telstra's uniform national price acts as a transmission mechanism to exacerbate this effect. An enhancement of competition in the natural monopoly areas would therefore also likely enhance competition in the competitive areas. "

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<sup>11</sup> Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry Expert Report, 1 December 2016, page 4.

Mr Feasey also concludes:<sup>12</sup>

“I consider that competition in Australia’s retail mobile markets is ineffective as a result of Telstra’s refusal to supply roaming. A relatively small number of consumers in regional Australia have no choice of supplier at all, since Telstra is the only firm to offer them coverage. A much larger number of consumers in suburban and urban areas which appear to be competitive are also ‘captive’ to Telstra because they value network coverage which neither of Telstra’s rivals, Optus and Vodafone, is able to offer today. Both sets of ‘captive’ customers pay too much for their mobile services as a result. Another group which also values coverage simply cannot afford it at the prices charged by Telstra today.”

## (h) Evidence of impact of declaration on investment

VHA has provided:

- [C-I-C];
- financial modelling evidence in response to Q14-15 which evidences it is not economic for VHA to build network in regional Australia; and
- information on current mobile tower build decisions in response to Q41-42 which evidences current VHA decision to build network infrastructure in regional Australia in the circumstances where VHA is able to acquire roaming from Optus.

The above demonstrates VHA’s ability and incentives to invest in regional Australia in the limited number of duopoly areas where VHA is able to build a reasonable business case. VHA has not stopped deploying mobile infrastructure in regional areas where it currently is able to acquire roaming services. In addition, declaration will allow VHA to deploy mobile infrastructure and promote infrastructure based competition including in areas beyond Telstra’s current network footprint.

Dr Ritzmann concludes:<sup>13</sup>

“Mandated access to roaming would likely encourage the efficient use of, and investment in, infrastructure in the natural monopoly areas and in the other non-contestable areas. In the natural monopoly areas, efficient use of the facilities would be encouraged by mandating the use of the facilities across the entire demand, in accordance with commonly accepted

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<sup>12</sup> Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 5.

<sup>13</sup> Dr Derek Ritzmann, Domestic Mobile Roaming Declaration Inquiry Expert Report, 1 December 2016, page 4-5.

natural monopoly concepts. In the areas that are not natural monopolies but are in practice non-contestable absent regulation, mandated access would encourage the efficient use of facilities in the short-term before infrastructure-based competition is viable, and would encourage the efficient investment in infrastructure in the long-term by facilitating the long-term investment in competing infrastructure. Efficient incentives for the access provider can be maintained through appropriate wholesale access pricing, and other targeted measures such as focused access holidays for certain new facilities, in the hands of an experienced regulator taking into account the appropriate incentives considerations.”

Mr Feasey concludes:<sup>14</sup>

“The consumer benefits that arise from such a declaration are difficult to quantify with precision. It is clear that a relatively small proportion of the total population – perhaps 2-3% - who currently have no choice of network provider would benefit from having such a choice. But they, and everybody else, benefit far more if competition in the metropolitan areas drives Telstra’s nationally averaged prices down to more efficient levels. That will happen if Vodafone and Optus (and the MVNOS which they support) are able to offer a service that is broadly equivalent to that offered by Telstra to all of those consumers who value network coverage but must rely on Telstra today. That amounts to about a third of the country’s population. In addition, consumers who cannot afford greater network coverage at the prices which Telstra charges today (and who therefore subscribe to Vodafone or Optus instead) may be able to afford greater coverage under more competitive conditions.”

Evidence abroad from the many western economies with large land areas and areas of low population density which have mandated domestic roaming shows no negative effects declaration has had on investment intensity. VHA has provided case studies in section 4 below.

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<sup>14</sup> Richard Feasey, Issues arising in relation to the ACCC’s domestic roaming declaration enquiry, November 2016, paragraph 7.

### 3. Evidence of anti-competitive behaviour

(a) Anti-competitive behaviour evidences need for regulation

[C-I-C]

(b) Telstra has a substantial degree of market power

[C-I-C]

(c) Telstra is taking advantage of that market power

[C-I-C]

(d) Telstra may be acting with an anti-competitive purpose

[C-I-C]

(e) Telstra's conduct is substantially lessening competition

[C-I-C]

## 4. Evidence of international best practice

### (a) New Zealand – did mandate roaming

#### *Regulatory solution and outcome*

From 2001, New Zealand enacted the Telecommunications Act 2001. National roaming was originally a “specified service” under Schedule 1 of that Act, enabling the New Zealand Commerce Commission (NZCC) to determine the non-price terms of access. In November 2006, the NZCC investigated whether to make national roaming (NR) a designated service rather than a specified service to enable price regulation to occur. In March 2008, the NZCC recommended against this, so NR continued as a specified service, but from September 2008 the service definition was updated.

In December 2010, the NZCC consulted again whether to investigate price regulation of NR, but decided not to investigate given adequate commercial arrangements were in place. In 2013, the NZCC consulted whether to investigate whether NR should be omitted from the list of specified services altogether, hence deregulated. The NZCC concluded the market was not competitive enough to warrant deregulation at that point in time, but noted:

“Under competitive conditions, we would expect roaming to be a longer-term feature of the market, with the boundary between a network and residual roaming areas being determined commercially.”

Currently, the preconditions for gaining access to the NR ‘specified service’ in New Zealand include that an access seeker must have at least 100 cellsites and provide coverage to at least 10% of the New Zealand population. An access seeker must also demonstrate a network build plan and sufficient spectrum holdings to provide mobile coverage to at least 65% of New Zealand’s population. The access seeker terms specifically exclude Vodafone NZ and Spark from requesting the NR specified service.

#### *Vodafone NZ’s involvement*

Prior to 2008, no market entry into the New Zealand mobile market occurred. From August 2008, 2degrees entered the New Zealand market and entered into a commercial roaming agreement with Vodafone NZ under which Vodafone NZ made its full network footprint available to 2degrees. Vodafone NZ’s original contract with 2degrees included an offer of 4G to 2degrees as soon as Vodafone NZ deployed 4G for its own customers (although 2degrees later declined to take up that offer in 2013).

Vodafone NZ’s position has been that, since it has already entered into a long term roaming agreement with 2degrees which includes full access to Vodafone NZ’s network footprint (including an

obligation to make 4G available), there is no need for continued regulation of roaming in New Zealand. To date, the NZCC has considered that notwithstanding the existence of such commercial roaming arrangements, roaming should be maintained as a specified service.

The circumstances facing Vodafone NZ in New Zealand are therefore not analogous to those facing Telstra in Australia given that Telstra does not have a pre-existing roaming arrangement providing access to Telstra's full network footprint. In effect, there is no ongoing market failure in New Zealand deserving of regulatory intervention.

### ***Impact on investment***

The mandating of roaming in New Zealand did not have any discernible negative impact on network investment.

There is some evidence to the contrary. Following mandating of roaming, TCNZ/Spark's capital intensity (17% from 2008 to 2016) was consistently higher than either the Australian industry average in the same period (12.3%) or Telstra's average capital intensity over the same period (9.9%).

### ***Relevance to Australia***

Unlike Australia, New Zealand has sought to regulate mobile roaming, but only in circumstances where national rollout will occur, thereby maintaining incentives for infrastructure investment. The New Zealand solution has promoted commercial arrangements for the supply of roaming services, as evidenced by Vodafone NZ's commercial arrangement with 2degrees – which extended beyond the scope of Vodafone NZ's regulatory obligations.

VHA considers that the New Zealand solution ensured that mobile operators reached mutually acceptable commercial arrangements, but without heavy-handed regulatory intervention.

In Australia mobiles are the most popular device for voice services with around 31 million mobile services in operation in Australia. Because sharing mobile services is neither regulated nor actively 'encouraged' in Australia, this has enabled Telstra to refuse to engage in genuine commercial negotiations with other operators for wholesale access to its full mobile network footprint, a strategy that has foreclosed retail competition in those areas where Telstra has a regional / rural monopoly.

## **(b) United States – did mandate roaming**

### ***Regulatory solution and outcome***

The United States (USA) mobile market is serviced by four national carriers (Verizon, AT&T, T-Mobile and Sprint), a number of regional carriers (eg US Cellular) and a number of MVNOs.

The FCC first mandated national roaming many years ago, but only for voice services:

- In 2007, the FCC clarified that wireless providers offering commercial mobile radio service (CMRS) must provide automatic roaming for voice, push-to-talk, and text messaging services -on a just, reasonable, and non-discriminatory basis -to other technologically-compatible providers, but only in areas outside of where the requesting provider holds spectrum licenses.
- In 2010, the FCC eliminated that "home roaming exclusion" and required mobile wireless carriers to provide automatic voice roaming regardless of whether the carrier requesting roaming holds spectrum licences in an area.

In 2011, the FCC ordered a fundamental increase in the strength of its national roaming regulation by extending it to a requirement to provide access to data services. The rules require facilities-based providers of commercial mobile data services to offer data roaming arrangements to other such providers on commercially reasonable terms and conditions.

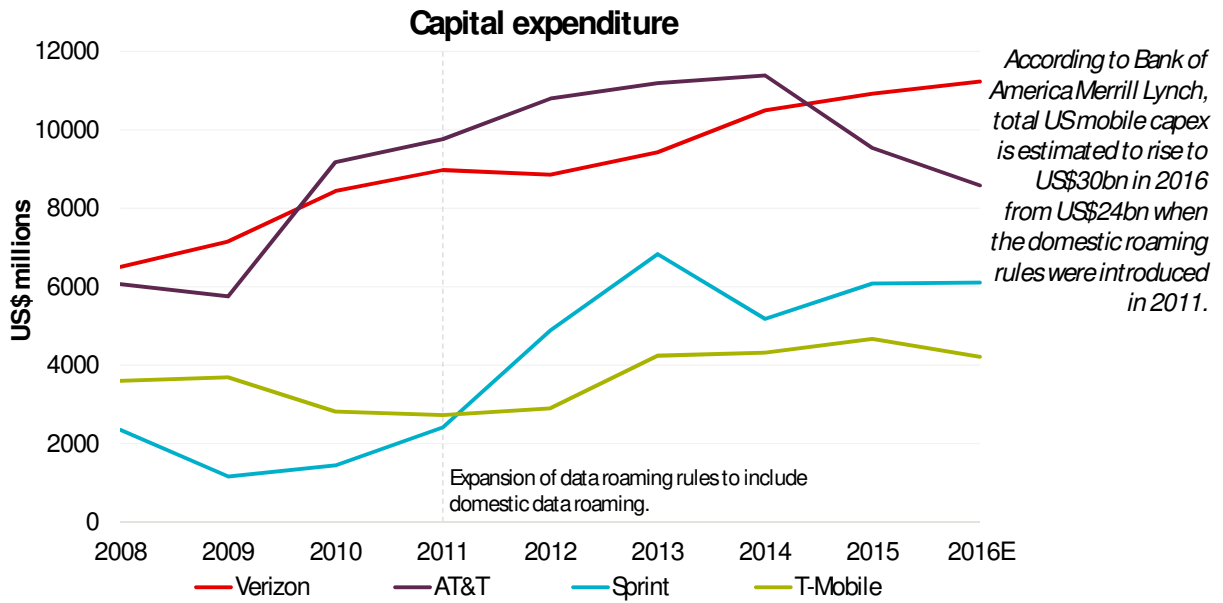
### ***Impact on investment***

The most recent experience in USA is illustrative of how declaring domestic roaming will likely effect investment incentives in Australia.

If there were any discernible negative impact on incentives for investment, this should be visible in the capital intensity (capital investment as a percentage of revenue) of the US carriers.

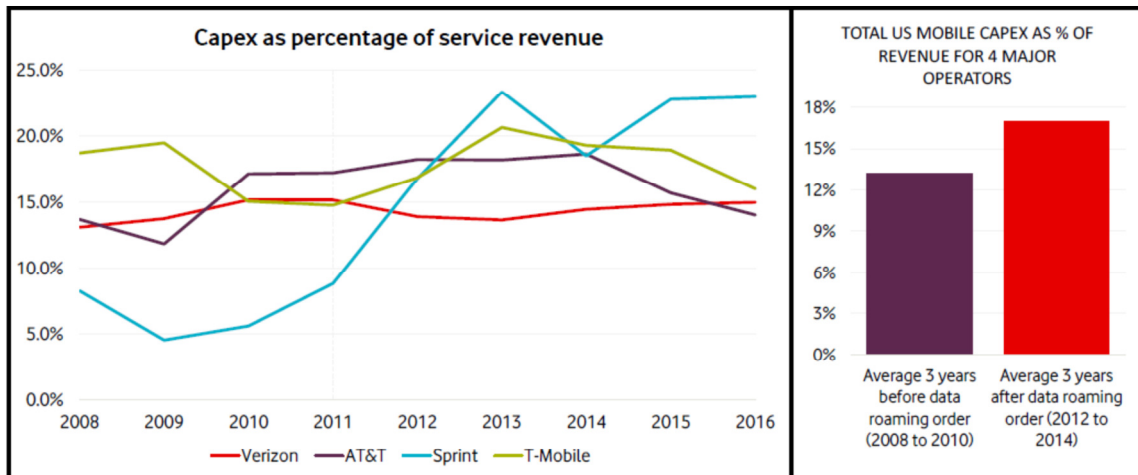
Detailed financial information is available in the USA for the 2 largest carriers (Verizon and AT&T) and the two other significant national carriers (Sprint and T-Mobile). This data shows that in the 3 years before the extension of national roaming to data services, the average capital intensity of the four national US operators was 13.2%, but that in the 3 years following the extension to data roaming, the average capital intensity increased to 16.2%.

The following graphs demonstrate this in further detail:



Source: Bank of America Merrill Lynch, *Global Wireless Matrix 1Q15*, VHA.

## Impact of FCC's domestic roaming rules on US telco: Capital expenditure as a proportion of service revenue



Source: Bank of America Merrill Lynch, *Global Wireless Matrix 1Q15*, VHA.

### ***Relevance to Australia***

If the ACCC declares domestic roaming, VHA would expect an increase in its ability to investment in marginal areas. Telstra, in response will also increase its investment intensity. As demonstrated above, this was precisely the effect in the United States – investments by the two larger operators



increased 13.8% in the three years following the extension of roaming requirements to data services, while investment by the two smaller national operators increased 18.3% in the same period.

The experience in USA also illustrates the growing recognition that data is becoming critical to consumers preferences and will only continue to increase in importance. As mobile service traffic shifts away from interconnected services to non-interconnected services, data roaming is necessary to ensure quality end-user experience.

Importantly, the FCC considered that mandating data roaming “appropriately balance the incentives for new entrants and incumbent providers to invest in and deploy advanced networks across the country, and foster competition among multiple providers in the industry”.<sup>15</sup> The FCC accepts that the availability of roaming encourages facilities-based competition by providing additional incentives for MNOs to enter a market as it allows the MNO “a competitive level of local coverage during the early period of investment and buildout”.<sup>16</sup>

VHA notes that the FCC mandated data roaming in circumstances where there is evidence of commercially available domestic data roaming. Indeed, FCC considered that the public benefits of roaming were so great that regardless of the commercial context, mandating data roaming was the most appropriate decision to promote the public interest.

Lastly, the FCC considered and dismissed the argument that mandating data roaming will reduce investment incentives. The FCC concluded that roaming is only required on reasonable terms and conditions which will limit any potential harm arising from mandating roaming.<sup>17</sup>

VHA submits that all of the public benefits identified by the FCC are applicable in Australia if domestic roaming is declared by the ACCC.

## (c) Canada – did mandate roaming

### *Regulatory solution and outcome*

Domestic roaming in Canada is regulated by way of spectrum licence conditions. Spectrum users are also required to facilitate tower and site sharing. If access providers and seekers are unable to agree on terms of facilities sharing or roaming, they may have recourse to arbitration.

On 20 February 2014 the Canadian Radio-television and Telecommunications Commission (CRTC), the Canadian telecommunications regulator, initiated a proceeding to determine whether the

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<sup>15</sup> FCC 11-52, *Second Report and Order*, 7 April 2011, paragraph 16.

<sup>16</sup> *Ibid*, paragraph 18.

<sup>17</sup> *Ibid*, paragraphs 33 – 35.

wholesale mobile wireless services market is sufficiently competitive and, if not, what regulatory measures are required.<sup>18</sup> As roaming is mandated, the CRTC's inquiry examined the terms and conditions of roaming agreements that were available in the market.

As part of the inquiry, the Canadian Competition Bureau (CCB) intervened and provided competition advice to the CRTC that there is differential treatment occurring in the contractual terms of roaming agreements that constitutes discriminatory or preferential behaviour. The CCB recognised that roaming agreements are “an essential component of any mobile wireless service provider's business, and strategic behaviour that negatively affects the terms of these agreements has the potential to adversely affect competition, economic welfare, the Canadian economy, and the sustainability of competition in Canadian mobile wireless markets”.<sup>19</sup>

The CRTC found that there were clear instances of unjust discrimination and undue preference by Rogers Communications Partnership with respect to (i) the imposition of exclusivity clauses in its wholesale mobile wireless roaming agreements with certain new entrants, and (ii) the wholesale mobile wireless roaming rates it charged certain new entrants. Consequently, the Commission prohibits exclusivity provisions in wholesale mobile wireless roaming agreements between Canadian carriers for service in Canada.<sup>20</sup>

On 5 May 2015, the CRTC published its policy decision on regulatory framework for wholesale mobile wireless services.<sup>21</sup> In making this decision, the CRTC examined the level of competition in the wholesale and retail markets, and examined the investment incentives of carriers in Canada.

The CRTC made a number of findings including:

- the national carriers (ie Bell Mobility Inc, Rogers Communications Partnership, and TELUS Communications Company) collectively possess market power in the national market for GSM-based wholesale roaming<sup>22</sup>
- the wholesale access to the GSM-based mobile wireless networks of the national carriers is essential for their competitors to provide broad or national network coverage to their retail customers<sup>23</sup>

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<sup>18</sup> CRTC, Review of wholesale mobile wireless services, CRTC 2014-76, <http://www.crtc.gc.ca/eng/archive/2014/2014-76.htm>.

<sup>19</sup> Commissioner of Competition, submission before the CRTC, Telecom Notice of Consultation CRTC 2013-685, 29 January 2014, paragraph 3.

<sup>20</sup> CRTC, Wholesale mobile wireless roaming in Canada – Unjust discrimination/undue preference, <http://www.crtc.gc.ca/eng/archive/2014/2014-398.htm>.

<sup>21</sup> CRTC, Telecom Regulatory Policy CRTC 2015-177, <http://www.crtc.gc.ca/eng/archive/2015/2015-177.htm>.

<sup>22</sup> Ibid, paragraph 74.

<sup>23</sup> Ibid, paragraph 109.

- mandating wholesale MVNO access is not appropriate given the regulation of wholesale roaming,<sup>24</sup> and
- it is no longer appropriate for the CRTC to refrain from regulating GSM-based wholesale roaming provided by the national carriers to other carriers.<sup>25</sup>

### ***Relevance to Australia***

In Canada, there are three national mobile carriers with comparable mobile coverage and similar market share (ie Bell Mobility Inc, Rogers Communications Partnership, and TELUS Communications Company), and a number of regional providers (eg Shaw Communications) and MVNOs.

The geography of Canada is similar to that of Australia that it has a large landmass and low population density in most areas other than urban centres, which provides challenges for mobile network operators.

With respect to investment, the mandating of roaming in Canada increased investment or had little effect. In the year following the action of spectrum licences for advanced wireless services (2008-09), investment increased 13.4% to 15.6%. The average capital intensity for the 7 years following mandated national roaming was 13.6% - broadly the same as it had been before the introduction of mandatory roaming.

The challenges faced in Canada is the dominance of the retail markets by the three national carriers. In that regard, the CRTC found that regulating the terms and conditions of domestic roaming would promote competition and preserve the investment incentives of mobile carriers.

As outlined in VHA's responses to Q4, and Q33, the CRTC made a number of findings which are relevant to the ACCC's declaration inquiry.

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<sup>24</sup> Ibid, paragraphs 120-125.

<sup>25</sup> Ibid, paragraph 128. Note that under the Canadian regulatory framework, the CRTC must refrain from exercising a number of its powers in relation to a telecommunications service or class of services provided by a Canadian carrier, if the CRTC finds as a question of fact that to refrain would be consistent with the Canadian telecommunications policy objectives. See s34(1) *Telecommunications Act* (Canada).

## (d) United Kingdom – did not mandate roaming

### *Regulatory solution and outcome*

In the UK, national roaming and/or active infrastructure sharing is not regulated, however the UK Government has applied political pressure on industry participants to enter commercial arrangements.

On 5 November 2014 the UK Department of Culture, Media & Sport (DCMS) initiated its “Tackling Partial Not-Spots in Mobile Phone Coverage” consultation. The DCMS consulted on a range of options the Government could mandate to improve mobile coverage in the UK including:

- national roaming;
- multi-operator Mobile Virtual Network Operator (MVNO); and
- active mobile infrastructure sharing through a geographic coverage obligation.

The result of this consultation was a binding agreement between the UK Government and the four mobile network operators (MNOs) that the MNOs would collectively improve network coverage to cover 90% of the geographic coverage area of the UK.

The UK solution is therefore not the result of heavy handed regulatory intervention, but rather from a regulatory environment that promoted active infrastructure sharing and encouraged mobile operators to identify and implement commercial solutions (backed by a threat of regulatory intervention).

### *Vodafone's involvement*

Vodafone UK has been part of these arrangements. Previously, from 2012, Vodafone UK and O2 announced plans to form a UK grid of around 17,500 joint base stations. The new grid provides service for customers of both MNOs by sharing active and passive mobile infrastructure, but retains independent spectrum, core network and competing retail services. The arrangement includes joint site management and the operators cooperate under managed network services agreements with one operator hosting the other in its designated region. In practical effect, customers of Vodafone UK and O2 obtain access to the same underlying national network under an active infrastructure sharing model.

Historically, on 5 November 2014, DCMS had proposed to mandate voice-only multiple operator national roaming in the UK. DCMS proposed that all operators should provide national roaming to all other operators to ensure that all operators had access to the coverage of all other operators. However, no UK mobile operator supported this proposal. DCMS therefore developed an alternative proposal in favour of joint commitments for additional investment from mobile operators.

As with the other mobile operators, Vodafone UK considered that the original DCMS model was not appropriate in light of the extensive sharing of infrastructure already in place between the operators. The heavy-handed model proposed by DCMS failed to recognise that alternative commercial solutions were already in place and could be leveraged in a manner that achieved DCMS' desired outcome without a mandated outcome. The ultimate solution contained a "Statement of Commitment" signed by the major mobile network operators in the UK, including Vodafone UK, which reflected their support for infrastructure sharing.

In this manner, Vodafone UK was not opposed to mandated roaming; rather Vodafone UK sought a commercial solution that minimised the need for regulatory intervention while leveraging the benefits of infrastructure sharing arrangements. VHA was therefore opposed to heavy-handed regulation in circumstances where a light-handed regime was sufficient. VHA sought a solution commensurate with the level of market failure.

### ***Relevance to Australia***

The UK market has four mobile operators that have similar coverage. This position has arisen because all four operators have favoured some of the greatest network sharing and collaboration arrangements of any country in the world.

[C-I-C]

Almost a decade after Sol Trujillo's mobile strategy, VHA considers that Telstra has successfully leveraged its monopoly position and substantial market power to attain an unassailable position in regional Australia, while harming the level of overall competition in Australia's mobile markets. The current situation in Australia is therefore very different to that in the UK.