

## **TELSTRA CORPORATION LIMITED**

Telstra submission to ACCC competition in evolving communications markets issues paper

**Public version** 

November 2016



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#### **EXECUTIVE SUMMARY**

There is no doubt that the communications sector is fundamentally changing. Advances in technology and shifting customer preferences has seen the emergence of new products and players and increasing competition between suppliers.

Traditional sources of market power have been disrupted, new global corporations are now competing in traditionally domestic markets, and disaggregated supply means that firms must compete for a share of an evolving value chain.

Customers are increasingly empowered in the relationship they have with suppliers, and suppliers are responding with better value and more attention to the customer experience.

Network connectivity is a critical enabler of these new technologies and the broader digital ecosystem. As customer demand for data increases, network providers are under increasing pressure to invest and innovate. At the same time, the rollout of the National Broadband Network (nbn) is reshaping the fixed broadband market.

Telstra considers these changes will have significant implications for the future regulation of communications services.

#### Technology innovation means new products and players are entering the market

The pace of change in technology in recent years has been rapid and is creating opportunities and challenges across all industries. Much technology innovation is underpinned by greater connectivity via communications networks. In the communications market itself, technology innovation has seen new and sophisticated devices come on the market and innovative communications solutions emerging from a community of new global start-ups.

The speed of technological change has meant supply is much more disaggregated, where many different firms now provide different parts of a communications service, and compete for a share of value.

At the same time, there has been a convergence in demand, with consumers preferring to access services through a single and functional end product. This trend towards both disaggregation and convergence poses a significant challenge and more complexity for existing business models in the sector.

#### Consumer preferences are changing the way communications services are delivered

Thanks to advances in technology, consumers have become accustomed to doing what they want, when they want, through their communications services.

The constant flow of new products and services that have become available to consumers, in particular Over-the-Top (OTT) applications and services, and Subscription Video on Demand (SVOD), are challenging the position of incumbents or forcing them to adapt to new customer preferences. In order to meet the demands of consumers, providers are seeking to provide all elements of the value chain through innovative service offerings and new partnerships.

Telstra has been at the forefront of this change, looking for ways to improve outcomes for customers through our product offerings. We are no longer simply a provider of



telecommunications but a technology company focused on delivering innovative connected services.

#### New market dynamics mean that network investment critical

The effect of changing customer preferences and new technologies means the overall consumer experience is highly dependent on access to high speed networks. This creates opportunities and challenges for network providers, who must continue to invest in network quality and performance to remain competitive. It is critical that this investment in networks to support technology innovation occurs within a regulatory framework that appropriately reflects the risk taken by network operators in a rapidly changing market.

The increasing reliance on networks for so many aspects of economic and social life also means that there is a much greater need for network providers to build resilience and redundancy into networks, and to give greater transparency on network speed and performance, providing confidence for consumers and businesses.

#### The nbn has ongoing implications for the sector

The nbn has also fundamentally changed the dynamics of the market. Indications from the nbn rollout to date show that the new network is driving competition, as was the intent of the Government's policy. However, the current nbn pricing construct is proving a challenge for all Retail Service Providers (RSPs), and in the future, careful planning is required to ensure no supplier or customer segment is disadvantaged.

#### Regulation needs to evolve with the market

The traditional view of competition and the existing regulatory framework do not adequately account for the developments that have occurred in the communications sector nor how the market has evolved and will continue to evolve.

We see a number of asymmetries where market dynamics have outpaced existing regulation and the existing regulatory framework is limited in view. This is particularly the case where the global market for content and applications now challenges the economics of local players. Examples of this are the existing SMS and Standard Telephone Service (STS) regulations which do not adequately take account of the impact of new market players in Instant Messaging and VOIP services on competition.

With increased competitive intensity resulting from greater customer empowerment and the entry of global OTT players (and others) into the market, there is considerable opportunity for regulation to be improved or replaced with lighter-handed regulation, including industry self-regulation such as an industry code.

Finally, it is important that there is ongoing and appropriate regulatory oversight of nbn co. to ensure that consumers continue to benefit from the changed market structure. This should be accompanied by a review of legacy access regulation to ensure it remains appropriate in the new environment.

We recommend the Australian Competition and Consumer Commission (ACCC) consider an approach to regulation that responds to a dynamic, competitive market whilst encouraging future investment and innovation.



#### INTRODUCTION

This submission is in four parts.

- Section 2 discusses the pace of technology innovation and the introduction of new players in the market
- Section 3 considers the changing nature of customer preferences for communications products and services
- Section 4 looks at changes in market dynamics driven by technology innovation and consumer expectations as well as the impact of the nbn and SSU
- Section 5 sets out Telstra's views on the implications of technology changes, customer preferences and new market dynamics for regulation.

Telstra's submission does not specifically address the questions raised by the ACCC in its Discussion Paper.

At this stage in the market study, we consider that it is more important to focus on the drivers of the current and future state of the communications sector, and the implications of those drivers for the regulatory framework.

The need for a framework that recognises the dynamic and competitive nature of the market should be at the centre of the ACCC's approach to regulation, rather than a focus on specific issues, service or products.



#### **NEW TECHNOLOGIES NOW PART OF THE VALUE CHAIN**

## The pace of change has been rapid and is not slowing down

Innovation in technology is the key driver of the evolution of the communications sector, underpinning increased consumer empowerment, the need for investment in communications infrastructure and changes in the dynamics of the market. Consumer demand for an increasingly converged communications service has driven competition in the market as firms seek to innovate and grow their share of the evolving value chain. As a result, there are strong incentives for communications market participants to facilitate rather than impede access to a full and diverse range of communications products, applications and content.

#### From the Nokia 3310 to the Internet of Things (IOT)

Just 15 years ago in 2001, the majority of Telstra customers did not own a mobile phone, and for those who did, the devices available on the market had limited capability for voice and text. Fast forward to 2010, and smart phones were gaining popularity with high definition (5 megapixel) cameras available on devices as well as 3G data connections.

By 2015, mobiles had become multiuse devices, with 4G connectivity, thousands of OTT applications, rich media content, faster processors, as well as even more advanced cameras. Mobile devices such as the iPhone 7, Samsung Galaxy S5 and the Nokia Lumia 1020 are capable of capturing images that can rival the quality given by dedicated cameras, at a lower price point.

Today, we are beginning to see the emergence of IOT, with hundreds of new devices coming online, including activity trackers smart watches, specialised equipment in hospitals, paddocks and building management systems. Gartner has predicted that growth in IOT is expected to increase rapidly, with 5.5 million new things getting connected every day. Their predictions show that by 2020, there will be over 20 billion connected "things" worldwide.<sup>1</sup>

#### Start-ups and technology patents are on the rise

The pace of technology innovation is also reflected in the growth of patent filing in Australia in recent years, which runs parallel with global trends. Australian patent applications have experienced an average annual growth rate of about three per cent over the past five years, similar to growth in patent applications worldwide as reported by WIPO.<sup>2</sup> According to their recent report, IP Australia received 28,605 standard patent applications in 2015, an increase of 10 per cent from 2014.<sup>3</sup>

The start-up ecosystem is also experiencing growth in Australia and around the world. Start-up success stories like Facebook and Uber have shown that new ideas and innovation can

<sup>&</sup>lt;sup>1</sup> "Gartner says 6.4 Billion Connected "Things" Will Be in Use in 2016, Up 30 Percent From 2015", Press release, <a href="http://www.gartner.com/newsroom/id/3165317">http://www.gartner.com/newsroom/id/3165317</a>

<sup>&</sup>lt;sup>2</sup> Australian Intellectual Property Report 2016, <a href="https://www.ipaustralia.gov.au/ip-report-2016">https://www.ipaustralia.gov.au/ip-report-2016</a>

<sup>&</sup>lt;sup>3</sup> Ihid



come from anywhere, and that industry and government need to find ways to support new ideas in the future.

In Australia, we are witnessing significant start-up investment growth and a growing recognition of the need for a comprehensive ecosystem to support incubation and start-ups. Recent success stories in Australia include Campaign Monitor<sup>4</sup>, Catch Group<sup>5</sup>, Ingogo<sup>6</sup> and the well-known Atlassian<sup>7</sup>, which was listed on the Nasdaq at \$US4.4 billion in November 2015. As the list of successful companies grows, more investors will see Australia as an attractive place to do business.

Telstra is committed to start-up innovation, through both our muru-D incubator program and our investment body, Telstra Ventures. With muru-D we are encouraging entrepreneurs and software engineers in Australia and Singapore to develop their ideas locally.

Growth in start-ups is also expected to accelerate under the Australian Government's commitment to the National Innovation and Science agenda to enable Australia to "deliver new sources of growth, maintain high-wage jobs and seize the next wave of economic prosperity."8

#### All industries are joining the digital economy

Digitisation is not unique to the communications sector and is affecting all industries. Australians are increasingly accessing the internet to study, work from home, use government services, complete banking transactions and to buy and sell goods.

Public and private sector leaders are progressively transitioning what were once bricks and mortar services online, and thanks to the cost reductions through digitisation, new companies can set up and expand their operations quickly without requiring substantial resources<sup>9</sup>. OTT applications are increasingly supporting these activities with the provision of services previously provided in person or over the phone, now carried over the IP network.

As an example, in 2013, mobile banking represented 24 per cent of all banking transactions in Australia and in less than two years that number has increased more than 1.5 times to 38 per cent<sup>10</sup>.

The digitisation of services across many industries is having a substantial economic impact. In 2014-15, revenue from the sale of goods or services online by businesses operating in Australia reached \$266.8 billion during 2013–14, a \$20 billion increase over 2012–13.<sup>11</sup>

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<sup>4 &</sup>quot;Australian startup Campaign Monitor is transforming into an automated email marketing platform", Alex Heber, 6 Aug 2015, http://www.businessinsider.com.au/australian-startup-campaign-monitor-is-transforming-into-an-automated-email-marketing-platform-2015-8

<sup>5</sup> http://www.catchgroup.com.au/

<sup>6</sup> https://www.ingogo.com.au/

<sup>7</sup> https://www.atlassian.com/

 $<sup>8 \ &</sup>quot;National Innovation and Science Agenda", http://www.innovation.gov.au/system/files/case-study/National%20Innovation%20and%20Science%20Agenda%20-%20Report.pdf \\$ 

<sup>9 &</sup>quot;The Internet Value Chain", GSMA, May 2016, http://www.gsma.com/publicpolicy/wp-content/uploads/2016/05/GSMA\_The-internet-Value-Chain\_WEB.pdf

<sup>10 &</sup>quot;Transcript from Full Year 2016 Financial Results – analyst briefing" Telstra, 12 August 2016 https://www.telstra.com.au/content/dam/tcom/about-us/investors/pdf-e/FY16-Briefing-Transcript.pdf

<sup>11 &</sup>quot;Australians are going over the top", ACMA Communications report 2014-15,

http://www.acma.gov.au/theACMA/Library/researchacma/Research-reports/australians-are-going-over-the-top



Another factor that is driving rapid change across all industries is cloud computing. Continuing advances in technology virtualisation are driving an acceleration in the migration of traditional IT environments to the cloud. A recent research study of large Australian companies showed 86 per cent are now using the cloud in their production environment.<sup>12</sup>

Cloud services provide improved flexibility, scalability, and cost efficiencies – as data capacity can be added or removed to meet demand, and new functionality can be added at any time.

We believe that growth in the digital economy will continue to drive innovative, internet and application based solutions for consumers.

## New products and services are challenging incumbents

The pace of innovation and rapid adoption of new technologies and services represents new challenges for incumbents, including traditional telecommunications businesses. Telstra has observed significant change in both the supply and delivery of services.

#### No company can be all things to all people

Today, many different firms provide different parts of a communications service and are each competing for a proportion of overall customer value. The supply of communications services to a single customer is no longer only provided through incumbent telecommunications providers, but is disaggregated across the broader market.

In their 2015 study, *The Internet Value Chain*<sup>13</sup> GSMA summarises how value in the digital economy is captured by a range of players, including:

- internet rights holders;
- online service providers: including content providers, banking services and retail;
- enablers of online services such as payment platforms or internet analytics;
- systems and interface providers such as Apple and Google (Android); and
- telecommunications network providers.

As a result of disaggregation in communications, over a short space of time, the reach of traditional telecommunication services has declined and the legacy products and services that used to dominate the market have become just one part of the broader value chain.

This shifting paradigm is reflected in our observations of how consumers are engaging with traditional telecommunications services.

<sup>&</sup>lt;sup>12</sup> "4 in 5 large Aussie companies embrace the cloud" Technology Decisions http://www.technologydecisions.com.au/content/cloud-and-virtualisation/article/four-in-five-large-aussie-companies-embrace-the-cloud-219084087#axzz4Ott9c9aj replicated from Infosys study "Simplify and Innovate the Way You Consume Cloud" http://www.experienceinfosys.com/cloudstudy

<sup>&</sup>lt;sup>13</sup> "The Internet Value Chain", GSMA, May 2016, http://www.gsma.com/publicpolicy/wp-content/uploads/2016/05/GSMA\_The-internet-Value-Chain\_WEB.pdf



By 2013, Skype had captured international voice minutes equal to almost 40 per cent of the entire conventional international telecommunications market. Consequently, International Direct Dialling (IDD) minutes continue to drop year on year. Likewise, substitution of traditional SMS services with OTT messaging applications (such as Facebook Messenger, WhatsApp, Viber etc.) is increasing. Analysys Mason estimate that the total volume of messages sent from mobile devices via IP services exceeded the volume of SMS messages for the first time in 2013, at more than 10.3 trillion compared with 6.5 trillion worldwide.

AT Kearney estimate that market size of the internet economy (both business and consumer) is in excess of 3.5 trillion dollars. Of this, only a small proportion (17 per cent) comes from "connectivity" or traditional telecommunications businesses. The vast majority of the market comes from online services (such as e-commerce, social), enabling technologies (such as payment systems) and user interfaces such as OTT applications and SVOD.<sup>16</sup>

The appeal of OTT services for consumers and business is in large part thanks to lower comparative costs. WhatsApp as an example, is built on a 'freemium' business model, providing unlimited messaging at no cost, or for a low fixed subscription fee.

However, as GSMA notes in its 2016 report on the digital economy, "the dissemination of data has been discussed as a hidden cost to consumers, who may pay for products offered free of charge 'indirectly' through disclosure of personal data." <sup>17</sup>

The commodification of data, and its role as a strategic asset for many players, means regulators and government need to consider a broader view of competition in the digital market.

#### Convergence is creating increasingly complex business models

While disaggregation in supply continues, there is a simultaneous convergence in demand. Customers are looking for firms to provide a simple, single access point for services. What were once discrete industries – consumer electronics, information services, telecommunications and entertainment, are now all part of an interconnected service solution in the eyes of the customer.

For providers to be successful in catering to the needs of today's customers, they will need to evolve their value proposition and adjust their business model to accommodate disparate services and products into a single flexible package.

As an example, in June 2016, Telstra announced it was developing a new Networked Home solution, the Telstra Smart Home platform, which is designed to integrate devices from different suppliers, supporting a range of new products, technologies and applications controlled from a desktop, smartphone or tablet application. Telstra is teaming up with US company iControl Networks to build the platform, which has been designed so that customers who have purchased products from other providers, such as HomeKit devices from Apple or

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<sup>14 &</sup>quot;Next generation communications & the level playing field- what should be done?", Communications Chambers, June 2016, http://www.ccianet.org/wp-content/uploads/2016/06/Next-Gen-Comm-Level-Playing-Field pdf

http://www.ccianet.org/wp-content/uploads/2016/06/Next-Gen-Comm-Level-Playing-Field.pdf

15 "OTT messaging volumes will nearly double in 2014", Analysys Mason, 28 January 2014, http://www.analysysmason.com/About-Us/News/Insight/OTT-messaging-volumes-Jan2014-RDMV0/

<sup>&</sup>lt;sup>16</sup> International Telecommunication Union, GSMA; A.T. Kearney analysis. Replicated from GSMA, The Internet Value Chain: A study on the economics of the Internet. May 2016, pg

study on the economics of the Internet, May 2016, pg. 

17 GSMA, The Internet Value Chain, May 2016 http://www.gsma.com/publicpolicy/wp-content/uploads/2016/10/GSMA\_Resetting-Competition\_Report\_Oct-2016\_60pp\_WEB.pdf



smart lighting from Philips can connect them to a ubiquitous Telstra solution. The platform is currently being prepared for trial and should be available in market later in 2016.<sup>18</sup>

The analyst firm Telsyte estimates that growth in the connected home market is set to grow, "as Internet connectivity is baked into many existing products and services" and a number of vendors move to integrate connectivity into existing products and services including whitegoods, gardening, security and energy management.<sup>19</sup>

The key insight is that players in the sector can no longer rely on established business models in the transition to a dynamically competitive market and must build strategic partnerships to establish competitive differentiation.

#### Converged markets are driving competition

Competition in these newly converged markets is strong, as firms seek to innovate and grow their share of the value chain. As a result, there are strong incentives to facilitate rather than impede access to a full and diverse range of communications products, applications and content.

In September this year, Foxtel announced they would be adding Netflix and Stan to their customer offering, acknowledging that this was what consumers were looking for.<sup>20</sup> At Telstra, we have launched our own content aggregator, Telstra TV, an online streaming device, designed specifically to allow Telstra customers to get the most out of popular streaming services, rent the latest films from BigPond Movies and catch-up on their favourite TV shows.

Since launch in 2015, there are now over 500,000 Telstra TV devices in households across the country, with access to apps such as Netflix, Stan, Fox Sports Now\*\*, ZooMoo# and many more.

Competition is also being driven by new market entrants who can be successful in the sector, with little to no barriers to entry. Founded in 2009 and for an initial investment of \$250,000<sup>21</sup> WhatsApp (an OTT message application) has now grown to over 1 billion users.<sup>22</sup> Within two years of being founded, the app was in the top 20 apps on Apple's US iStore and, after just five years, the company was sold to Facebook for \$US19.3billion.<sup>23</sup>

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<sup>&</sup>lt;sup>18</sup> "Welcome to your Smart Home", Telstra Exchange Blog, June 2016, https://exchange.telstra.com.au/2016/06/22/welcome-to-your-smart-home/

<sup>19 &</sup>quot;Australian IOT @ Home Market to reach \$3.2 billion by 2019". Telsyte, August 10 2015,

http://www.telsyte.com.au/announcements/2015/8/10/australian-iot-home-market-to-reach-32-billion-by-2019-embedding-smart-technology-into-everyday-life-1

<sup>20 &</sup>quot;Foxtel toad Netflix and Stan to its offering" Adnews, 29 September 2016, http://www.adnews.com.au/news/foxtel-to-add-netflix-and-stan-to-its-offering

<sup>&</sup>lt;sup>21</sup> "The Rags-To-Riches Tale Of How Jan Koum Built WhatsApp Into Facebook's New \$19 Billion Baby", Forbes, 19 February 2014, <a href="http://www.forbes.com/sites/parmyolson/2014/02/19/exclusive-inside-story-how-jan-koum-built-whatsapp-into-facebooks-new-19-billion-baby/2/#84074463f5fa">http://www.forbes.com/sites/parmyolson/2014/02/19/exclusive-inside-story-how-jan-koum-built-whatsapp-into-facebooks-new-19-billion-baby/2/#84074463f5fa</a>

<sup>&</sup>lt;sup>22</sup> "WhatsApp has grown to 1 billion users", The Verge, 1 February 2016, <a href="http://www.theverge.com/2016/2/1/10889534/whats-app-1-billion-users-facebook-mark-zuckerberg">http://www.theverge.com/2016/2/1/10889534/whats-app-1-billion-users-facebook-mark-zuckerberg</a>

<sup>&</sup>lt;sup>23</sup> "Facebook Closes \$19 Billion WhatsApp Deal", Forbes, 6 October 2014,

 $<sup>\</sup>underline{\text{http://www.forbes.com/sites/parmyolson/2014/10/06/facebook-closes-19-billion-whatsapp-deal/\#138e2a51179e}\\$ 



While the barriers to entry for new players are low, dominant players are emerging globally. In their 2016 study of the economics of the internet, GSMA says of the top 15 internet sites in the United States in 2015, there are only four sites that were not on the same list in 2009.

The report also highlights a growing trend for the leading internet companies to expand into multiple categories, primarily via acquisition. Notable examples include Facebook buying WhatsApp, or Google buying Nest home automation systems.<sup>24</sup> New, global OTT players should be considered by the ACCC as an important part of the competitive landscape in Australia.

#### When the media market met the telecommunications market

With the rise of on-demand entertainment enabled through connectivity and compatible devices, the media market is also experiencing dramatic change. One of the consequences of the digital economy for media companies is the increase in competition for consumer attention that convergence has generated. For example, Free to Air networks in Australia must now compete as vigorously with OTT content providers as they have with cable companies for the last 15 years.

Free to Air providers are responding in different ways including by offering online catch-up of content primarily broadcast using traditional means, increasingly venturing to simultaneous Internet streaming of broadcast content, as well as content on demand. Their advertising-centred business models will also need to adapt to the subscription models of their challengers.

The convergence of delivery platforms for video content has also brought media and telecommunications companies into ever closer partnership. Whereas previously television content was distributed only via dedicated spectrum or specialised cable networks, it is now available over the internet using mobile, fixed and cable broadband networks in volumes. The rapid adoption of online video has seen data volumes across networks in Australia increase dramatically. In the three months to December 2015, Australian's used 1.7 million terabytes of data, 50 per cent more than in the same period in 2014<sup>25</sup>. The impact of this data growth on network capacity is discussed in more detail in section 4.

At present consumers are demonstrating a preference to download data-rich content over fixed line services as opposed to mobile, and are influenced in this choice by comparative price and speed factors as well as data allowances and "extras" available on fixed services.

Increasingly, fixed network providers are integrating traditional communications services (voice/data) with media and content services.

This change has been reflected in offers across the market by all providers who are looking for ways to improve outcomes for customers. For example, in August this year Telstra increased data allowances across its entire bundle range to provide up to 1500GB of data to customers,

 <sup>24 &</sup>quot;The Internet Value Chain", GSMA, May 2016, <a href="http://www.gsma.com/publicpolicy/wp-content/uploads/2016/05/GSMA\_The-internet-Value-Chain\_WEB.pdf">http://www.gsma.com/publicpolicy/wp-content/uploads/2016/05/GSMA\_The-internet-Value-Chain\_WEB.pdf</a>
 25 "The Netflix effect: Australian data consumption grows faster than ever in 2015" the SMH, April 6, 2016

<sup>25 &</sup>quot;The Netflix effect: Australian data consumption grows faster than ever in 2015" the SMH, April 6, 2016 http://www.smh.com.au/technology/technology-news/the-netflix-effect-australian-data-consumption-grows-faster-than-ever-in-2015-20160406-gnzudo.html



and provided customers with the flexibility to customise their bundles with additional data, calls and content.

By partnering with SVOD/OTT service providers and other content providers, traditional telecommunications companies are seeking to enhance the attractiveness of their services to customers.

#### **Content is king**

As content rights and ownership of content are important differentiators in the market, content owners are increasingly powerful players in the sector and demand for access to content rights is coming from a growing group of players such as Free to Air providers, subscription TV providers such as Foxtel, SVOD providers such as Netflix, Fetch TV and other OTT providers; as well as telecommunications providers. Some content producers (e.g. major sporting clubs) are also bypassing third party platforms and providing their content direct to consumers over the Internet.

Rights holders are pursuing a number of models to monetise the content they invest in, and competing with each other on that basis as well as on the content itself. For example, at Telstra both the NRL and AFL are available to non-Telstra customers on a metered and paid basis, to maximise the number of customers paying for that content. On the other hand Optus monetises its English Premier League rights by making them available exclusively to Optus customers, presumably with the aim of expanding its mobile and broadband customer base.<sup>26</sup>

<sup>26 &</sup>quot;Optus launches new EPL offers due to backlash" The New Daily, June 6, 2016 http://thenewdaily.com.au/sport/football/2016/06/06/how-to-watch-english-premier-league/



#### **CUSTOMER PREFERENCES ARE SHIFTING**

## Customers want more content and services across many devices

As technology innovation accelerates in the communications sector, consumers are growing accustomed to new technologies, as well as advances in network connectivity. Consumers are seeking richer online content and more personalised, convenient and low cost experiences. This is largely driven by smartphone and mobile broadband penetration and is reflected in increasing rates of OTT and SVOD adoption.

#### Smart phone penetration and mobile internet are driving network traffic

Consumers are increasingly using connected devices to access the internet on the go. In the past five years there has been a significant trend of fixed to mobile substitution, with mobile handsets now the most popular way to access the internet in Australia.<sup>27</sup>

As noted by the ACMA in its Communications Report 2014-15<sup>28</sup>, almost 80 per cent of online adult Australians are accessing the internet over their mobile phone and 58 per cent are going online via tablet computers. The use of mobile devices to access the internet is not restricted to on the go – rather, a growing number of users now use a smartphone or tablet as their primary connection device, including using fixed connections over WiFi.<sup>29</sup> At the same time, the number of fixed-line telephone connections continues to decline, with mobile services in operation (SIOs) now outnumbering fixed services three to one.

With smartphones now the most popular way to access the internet, data consumption over mobile networks is accelerating and between June 2014 and June 2015, handset internet use in Australia increased 84.8 per cent. The rate and pace of growth in mobile data use is profound, and in the next five to six years, mobile data traffic is expected to grow tenfold, with video representing more than three quarters of this growth.

There is also an increasing diversification in consumer internet access across different types of devices, with the percentage of Australians accessing the internet over five or more devices on the rise. Device growth is expected to continue, as the IOT gathers momentum and tens of billions of devices, from aircraft engines to cars, smart TVs and domestic appliances get connected.

#### Popularity of OTT applications is moving value in the market

Less than 10 years ago mobile phones were used for making voice calls and texting alone. Today, they play a role in many aspects of social and professional life, with OTT applications such as Facebook, Twitter, Skype, LinkedIn and WhatsApp, now among the most popular internet sites globally.

OTT messaging services provide customers new ways to connect with others, offering a suite of features including voice messages, media sharing and graphics. The popularity of

<sup>&</sup>lt;sup>27</sup> "Australians are going over the top", ACMA Communications report 2014-15, http://www.acma.gov.au/theACMA/Library/researchacma/Research-reports/australians-are-going-over-the-top

<sup>&</sup>lt;sup>29</sup> According to the ACMA (Ibid) almost 30 per cent of the total adult population were estimated to be without a fixed-line telephone service in the home.



these applications has resulted in the substitution of services traditionally provided by telecommunications companies, including voice calls and SMS.

These services are growing in reach with the ACMA reporting in 2015<sup>30</sup> that 54 per cent of online Australians aged 18 and over were using an app to communicate with others online, with about 50 per cent sending messages, 28 per cent making voice calls and 25 per cent making video calls.

#### SVOD is here to stay

Another pronounced change in the communications market in the last two years has been the arrival of audio-visual streaming services, and the increasing popularity of SVOD services, such as Netflix, Presto and Stan.

A recent Roy Morgan study found that in 2015, 34 per cent of Australian adults watched online television or professionally produced video content online in a given week. These services offer consumers a range of ad-free content options, an easy user interface, the flexibility of non-linear viewing, as well as exclusive content and curated experiences.

After launching in Australia in March 2015, Netflix rapidly expanded its reach, growing by an average 30 per cent per month and by the end of 2015, 2,728,000 Australians 14+ (13.9 per cent) had Netflix, with over a million homes subscribed.<sup>31</sup>

While Pay TV services and Free to Air television still dominate the content market, SVOD service adoption is increasing, particularly among younger generation subscribers. According to Roy Morgan, SVOD homes watch, on average, half an hour less commercial television on a normal weekday than those without any SVOD.<sup>32</sup>

The trend to SVOD shows no sign of slowing down, with Ovum forecasting growth in global video traffic will nearly double over the next four years.

## Digital connectivity is delivering benefits to consumers

Growth in digital connectivity and the prevalence of social networking is also leading to much greater customer empowerment. Customers now have better tools to share experiences and more transparent access to information about supplier performance, as well as the ability to easily compare services.

At the same time, service providers are becoming better at understanding the preferences of individual customers, delivering intuitive interfaces, tailored content and more competitive offers.

<sup>30</sup> Ibid

<sup>&</sup>lt;sup>31</sup> Roy Morgan Finding No. 6633, http://www.roymorgan.com/findings/6633-netflix-growth-slows-by-end-of-year-december-2015-201601182300

<sup>&</sup>lt;sup>32</sup> Roy Morgan Finding No. 6646, <a href="http://www.roymorgan.com/findings/6646-decline-and-change-commercial-television-viewing-audiences-december-2015-201601290251">http://www.roymorgan.com/findings/6646-decline-and-change-commercial-television-viewing-audiences-december-2015-201601290251</a>



#### Customers are better informed and empowered

We see three main benefits from this change for consumers.

- With better access to information, consumers are better able to switch between alternative providers and test new providers.
- This in turn, has made it possible for new entrants to establish themselves in the market (for example new mobile virtual network operators such as Woolworths and Aldi), driving greater competition overall.
- With increasing competition in the sector, communications providers are raising the bar for quality, and delivering ongoing improvements in connectivity and customer service.

#### The industry is listening and responding to customers

An increasing number of communications service providers have adopted the Net Promoter Score (NPS) system or equivalent, to help measure customer sentiment and drive better customer outcomes. All of the major ISPs and mobile network operators currently track and maintain NPS or equivalent metrics, often reporting them alongside financial results.

NPS measures help to drive improvements or resolve issues for customers. For example, first Telstra, and then other industry providers have responded to customer feedback on excess usage charges by introducing real time SMS alerts to customers as they are nearing their mobile data allowance limit each month, allowing them to better manage their services and spend levels.

#### Service performance should be transparent to consumers and businesses

There are positive signs that the industry is actively seeking to ensure customers have access to information and tools to make informed choices about services. For example at Telstra we have recently introduced an ADSL2+ speed estimate as part of the service qualification process when a customer signs up for a broadband service, along with diagnostic tools to help identify issues if the speed range is not achieved. This information is available to both retail and wholesale customers and provides an expected range for speed and an explanation of the factors which may impact actual speed.

We are also actively supporting the work being undertaken by Communications Alliance to publish a comprehensive set of plain language information regarding broadband performance that can be referenced by customers.<sup>33</sup>

We are supportive of moves to provide greater transparency of service performance across the sector. The ACCC provides guidance to RSPs regarding broadband speed claims in advertising, however Telstra believes this requires review and updating to help improve standards across the industry for how speed claims are made.

<sup>&</sup>lt;sup>33</sup> Response to the ACCC Broadband Speed Claims discussion paper, Telstra Corporation Ltd, September 2016, https://consultation.accc.gov.au/communications-1/consultation-on-broadband-speed-claims/results/submission-13---telstra-corporation-limited.pdf



## Demand for data is driving lower prices and more competition

In Australia, demand for data and data traffic across the industry continues to grow strongly, and in the last five years, data traffic on the Telstra fixed network alone increased on average 60 per cent per annum. Mobile traffic on Telstra's networks grew almost nine fold in a similar period. However, while average data consumption across both mobile and fixed services has increased in the last few years, average prices have decreased.<sup>34</sup>

Data is becoming an increasingly important commodity for customers, as they seek larger allowances, at lower costs. Suppliers have responded to this demand with greater incentives for customers to stay, including through price levers, data offers and unlimited (fixed broadband) data plans. In the mobile space, unlimited calls and SMS are rapidly becoming the norm, even on prepaid services and while data prices are reducing, carriers are going even further with unmetered offers. Many ISPs and mobile operators offer unmetered access to OTT services such as Apple Music, Spotify, social media (e.g. Facebook), SVOD and sports coverage in order to meet increasing consumer demand for data consumption.

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<sup>&</sup>lt;sup>34</sup> ACCC Report "Competition in the Australian telecommunications sector- Price changes for telecommunications services in Australia", February 2016, page 92,



### MARKET DYNAMICS FUNDAMENTALLY CHANGED

The pace of technological change and accompanying evolution of customer preferences has a significant impact on network providers – and the ongoing need for investment in communications infrastructure. While investment has been strong to date, continued investment and innovation in networks needs to be supported by a regulatory framework that appropriately recognises the risk.

The significant market intervention by the Government through the nbn is also impacting the structure of the market. While the nbn has the potential to drive competition, this needs to occur in a way that allows all service providers to compete on a level playing field. In particular the approach to pricing services over the nbn needs to be carefully assessed to ensure that no customer segments are disadvantaged. It is also important that nbn co. remains dedicated to its primary purpose – the rollout of the nbn to customer premises – rather than seek to supplement its revenue stream by entering and distorting competitive markets.

## Technology change and customer demand is driving network investment

Today, networks play a fundamental role in social and economic inclusion and prosperity, as consumers and businesses rely on coverage and connectivity more than ever before. This has led to more bundled sales, the convergence of communications services, and increased competitiveness in communications markets, as discussed elsewhere in this submission.

These changes are driving demand for communications infrastructure and have important implications across the sector, with network players under increasing pressure to invest and innovate.

#### Investment in mobile networks is strong

Competition in the mobile market is strong, characterised by infrastructure competition and a thriving wholesale market with a high number of Mobile Virtual Network Operators (MVNOs). As a result service providers are increasingly focused on both coverage and network quality. As mobile players compete to gain competitive advantage, the mobile market is seeing continued investment and innovation, with the three main market players investing heavily in infrastructure to improve coverage over the last few years.

Last year Optus spent \$1.7 billion on mobile infrastructure and reported revenues of \$6 billion from 9.4 million mobile customers. Optus also invested \$196 million in regional licences in the 1800 MHz spectrum band earlier this year, which will enable their 4G services to be expanded in regional areas. Likewise, Vodafone's local operation has made multibillion dollar investments in its network in recent years, which has contributed to a growing subscriber base.

In the three years to June 2017, Telstra expects to have invested \$5 billion in mobile services nationally. Over the next three years, on top of our normal investments in our mobile network, we have announced we would increase our capex to sales ratio in order to invest up to an additional \$3 billion into further boosting our networks, customer experience and digitisation.



The outcomes of the competitive mobile market are clear to see – the GSMA Mobile Connectivity Index ranks Australia first in the world for mobile connectivity overall. This is supported by a ranking of 5<sup>th</sup> in the world for mobile handset penetration, 6<sup>th</sup> for mobile infrastructure coverage (despite having one of the largest land masses and most dispersed population) and 8<sup>th</sup> in the world for mobile network performance.

#### The network of the future is 5G

5G is set to be the newest generation of wireless technology, and is expected to enhance existing 4G services with additional capacity, higher speeds, and lower latency (delay time), and support the huge numbers of connections expected through IOT developments.

All major mobile network operators have indicated they intend to deploy 5G technologies, utilising recently purchased spectrum to do so. Ovum predicts that by the end of 2021, there will be 24 million 5G subscriptions worldwide for mobile and fixed broadband services, with the mainstream launch expected in 2020.<sup>35</sup>

Telstra is putting the building blocks in place for Australia to be ready for 5G, with significant work underway around 5G standards, testing, and spectrum. We have also announced our own 5G trial for the Gold Coast in 2018.<sup>36</sup>

#### Resilience, security and network redundancy are key

Consumers and businesses are increasingly reliant on the Internet for a variety of reasons. Amongst other things, it is fundamental to social inclusion and to everyday business and government activity. As networks provide this connectivity, network interruptions can have wide-ranging impacts for consumers, business and governments, with flow on effects in industries such as banking and transport.

As a result, network resilience and reliability is increasingly important. This is reflected in the high levels of investment being undertaken by all market players in this area. For example, this year Telstra announced a \$250 million investment program to improve network resilience in both the mobile and fixed networks to mitigate the risk of network interruptions. All networks will experience interruptions – planned or unplanned – at times. We continue to look for ways to improve resilience and ensure our customers can to continue to rely on our network performance.

#### Network providers need the right environment for investment in the future

The OTT applications and SVOD services we have described in this submission would not be possible without continual investment in network capacity. As a significant amount of technology today relies on connectivity, investment in networks will be critical to the future of many sectors of the economy, including the communications sector.

<sup>&</sup>lt;sup>35</sup> "5G will hit 24 million subscribers worldwide in 2021", Press release, 28 June 16, <a href="https://www.ovum.com/press\_releases/5g-will-hit-24-million-subscriptions-worldwide-2021/">https://www.ovum.com/press\_releases/5g-will-hit-24-million-subscriptions-worldwide-2021/</a>

hit-24-million-subscriptions-worldwide-2021/
<sup>36</sup> "Preparing for the arrival of 5G", Telstra Exchange Blog, 3 August 2016, <a href="https://exchange.telstra.com.au/2016/08/03/preparing-for-the-arrival-of-5g/">https://exchange.telstra.com.au/2016/08/03/preparing-for-the-arrival-of-5g/</a>



There is no doubt that the connectivity task ahead for mobile network operators is a significant and expensive challenge. While mobile market settings have enabled successful investment in mobile networks to date, competition must be encouraged for this to continue in the future.

To enable the investment, having the right regulatory settings is going to be critical to ensure the market continues to strive for innovation and invests in better customer outcomes.

#### Strong competition is evident in the transmission market

Thanks to the changes in both the fixed and mobile market, demand has also been strong in the transmission market. Competition in the transmission sector continues to be strong, with a positive effect on wholesale customer outcomes, including in regional and rural areas.

We see two contributing factors to this outcome, which we expect to continue.

First, competition in the sector has increased following several mergers, infrastructure 'build' agreements and new market entries, including electricity distributor TransGrid. nbn co. also appears to be interested in offering transmission services, which we will discuss further in the next section.

Secondly, after its review of regulated transmission, the ACCC's 2016 final access determination on the prices for the declared Domestic Transmission Capacity Service (DTCS) has provided lower transmission prices for the sector. With pricing significantly lower than those prices set in the 2012 DTCS FAD, the market continues to be competitive, with evidence of continued downwards pressure on commercial prices.

The dark fibre market is also responding to increasing demand for data, with a number of operators including Vocus, Superloop and until recently Nextgen, expanding their product range and winning business from larger providers.

## The nbn is transforming the industry

The nbn rollout plays an important role in the evolution of the competitive communications market. All RSPs have an equal opportunity to compete for customers migrating to the nbn. This should lead to even greater competition in the market, with resulting benefits for customers.

At the same time however, nbn co. has the flexibility to make changes to prices that could have significant detrimental impact on competitive and consumer outcomes in the market. Alongside this is the potential for nbn co. to continue to expand its scope into retail and competitive markets, with potential impact on the structure and outcome of those markets as well.

#### nbn is driving competition

As the nbn market is being established, there is strong competition between RSPs to retain and acquire new customers, particularly during the migration period.

Price competition is already evident, with RSPs focused on increasing data allowances to meet demand for data-intensive services like SVOD. While it is still relatively early in the nbn roll-out phase, there are signs that the competition in the market will continue, including with the



significant new market entry of Vodafone Australia, which announced in October 2016 it would start offering home broadband services on the nbn starting in 2017.

Furthermore, the Structural Separation Undertaking (SSU) addresses historical concerns around Telstra's vertical integration. The SSU requires Telstra to provide equivalence and transparency to retail and wholesale customers during the transition to the nbn, and commits Telstra to structurally separate by migrating customers to the nbn, thus removing any competitive advantage that may have been attributed to Telstra.

#### However, competition needs a level playing field

While the nbn rollout has been designed to support competitive outcomes, it is important that all industry participants are subject to a level playing field in the supply of services to residential and small business customers.

As Telstra noted in our submission on the exposure draft of the Carrier Licence Conditions (Networks supplying Superfast Carriage Services to Residential Customers) Declaration 2014, we consider that the obligations placed on network providers should, at a minimum, be analogous to the obligations nbn co. faces to be a wholesale provider.

These obligations deliver benefits for competition in the following ways:

- They facilitate third party access to certain superfast carriage services that exhibit bottleneck characteristics due to technical and commercial features of the service(s);
   and
- They promote competition by ensuring that customers are able to benefit from equivalent outcomes that they would otherwise enjoy on the nbn through increased retail competition, such as service innovation and lower prices.

In order to effectively promote competitive outcomes, it is also important that a level playing field is appropriately reflected in any regulated pricing of superfast broadband services. This means that services should be priced in such a way as to neither undermine the nbn, nor disadvantage other networks who are providing these services.

#### nbn CVC pricing is a risk to competition

While competition is strong in the early migration to nbn broadband, the charges faced by RSPs to provide services over the network are significantly higher than those on Telstra's legacy copper network.

nbn CVC pricing is becoming a significant issue for all RSPs and has led to a number of small companies starting to provide high speed broadband services over alternative technologies such as wireless (e.g. DGTech, Lightning).

There is a risk that the high costs of providing services over nbn will lead to further industry consolidation as RSPs (especially smaller RSPs or potential new entrants) are not able to viably supply consumers.

However, larger players are not immune to the effects of the pricing structure. Media reporting has closely followed the TPG share price, which fell by more than 35 per cent in the month



after the company lodged its interim results with the ASX in September 2016; and commentators have pointed to high CVC charges as a key driver.

If CVC prices continue to remain high - at a time when customer demand for data is greater than ever and only growing, against expectations that prices should continue to decrease - RSPs will have no incentive to purchase more from the nbn, and consequently be unable to deliver to customer demand. Pricing constructs that seek to differentiate between RSPs such that customers are disadvantaged due to their usage patterns also risk undermining the intent of the nbn in a number of ways, including potentially excluding some customers from the benefits of retail competition and providing an incentive to switch to alternative networks.

Furthermore, under the current pricing structure, there is an incentive for more providers to invest in alternative technologies that bypass the nbn in order to provide consumers with affordable options. In the long term this would undermine nbn co.'s intent and business case, with the risk of a reduction in the level of retail competition over the nbn.

#### nbn "scope creep" would distort competitive markets

With the rollout due to hit critical mass in the next 12 to 24 months, nbn co. is now increasingly looking for new sources of revenue to offset its network build costs, and therefore has incentive to increase scope, potentially branching into competitive markets.

One example is access to nbn points of interconnect (POIs), with suggestions that nbn co. is considering whether to offer a different access solution for smaller RSPs.

At this stage the exact specifications of this solution are unclear, but there is no evidence that an nbn co. intervention in the market is warranted in this instance. This is because there are competitive wholesale solutions already available for these smaller RSPs and the market for such solutions (e.g. wholesale nbn aggregation services) is characterised by an increasing level of competition and growth.

Similarly, in September 2016 nbn co. released its Cell Site Access Service product, which is designed for mobile service providers to connect cell towers through the nbn fibre network. This product provides a similar service to the regulated transmission (DTCS) service and appears to be outside the policy intent of nbn co.

Over time there is a real risk that nbn will encroach into areas of competitive activity inevitably distorting market outcomes as it leverages its advantages as a government owned and funded entity. This view is widely shared across the industry with many market participants consistently opposed to any relaxation of line of business restrictions for nbn co. in order to provide certainty and enable investments to be made without risk of future competition from nbn co.

Clear, fixed boundaries around nbn co.'s permitted scope of business are needed, to provide certainty for all providers who have made (and continue to make) significant investments in access services, as well as for RSPs.



#### IMPLICATIONS FOR REGULATION

In this submission we have explained how the communications sector – an essential enabler of productivity, competitiveness and growth – is undergoing far-reaching disruption driven by rapidly changing technologies, market developments and consumer engagement.

Across the sector, business models are evolving as the nature of competition changes.

As a result of these changes and emerging trends, we see a number of significant implications for the future of regulation in the sector.

- 1. Regulation needs to be responsive to a dynamic market whilst encouraging innovation and investment:
- 2. In response to increasing competition and the emergence of global new entrants, existing regulation in many areas can be pulled back; and
- 3. Further changes to regulation can be made in response to fundamental changes brought about by the nbn.

# Regulation needs to be responsive whilst encouraging innovation and investment

In the increasingly dynamic communications environment, changes in technology have created new opportunities to disrupt incumbents, rendering traditional sources of market power transitory.

At the same time, with a proliferation of new competing services, the communications value chain is splintering.

As a result, regulation must recognise the dynamic nature of the market in order to keep pace with changing conditions. The impact of legacy regulation and its ability to stifle innovation can be illustrated by examining the market for passenger transport services in Australia, specifically taxis versus Uber.

#### Legacy regulation has inhibited the ability of the taxi industry to respond to disruption

The taxi industry has for many years been subject to entry restrictions and fare regulations resulting in high customer fares and minimal flexibility in the taxi industry. This made the taxi industry ripe for disruption with Uber creating a ride sharing market offering consumers an innovative service, lower prices and a better customer experience. Instead of responding to the competitive threat of Uber and other ride sharing services, the taxi industry has been slow to adapt due to dated regulations which have imposed high upfront costs and limited its ability to actively compete.



#### Passenger transport services (Taxis v Uber)

Context: the taxi industry is usually subject to entry restrictions and fare regulation. The market entry of Uber (and other similar booking apps) has provided a recent case study of the outcomes (benefits) of competition that have been lacking in the regulated taxi industry.

#### Outcomes include:

Enhancing efficiency: market entry is driving productive efficiency – Uber drivers have been able to enter the market at lower cost and this entry is driving taxi operators and fleet owners to manage their vehicles more efficiently and in some cases reduce their fleet size. Entry of Uber has also led to lower fares for some services and provision of services that is meeting consumer demands (allocative efficiency). The extent to which these new services are meeting consumer demands is illustrated by their popularity and growth in passenger numbers.

Enhancing innovation and product quality: Uber's booking process, which allows customers to track the arrival of their vehicle, provides details of the driver and allows both driver and passenger to rate each other is an innovation that separates it from the taxi industry. This process has improved the quality of the 'product' on offer as users have a greater appreciation of the quality of the service they are booking, and it creates incentives for the driver to offer a good service (so that he/she gets a good rating which attracts customers in the future) and for passengers to be well behaved (so that he/she gets a good rating and Uber drivers accept future bookings).

This contrasts to the taxi industry where the ongoing link between driver and passenger is weak. An individual taxi driver does not need to have a customer centric focus or strive to give the best service — providing a poor service does not impact the driver's ability to get future customers.

In this way Uber's and other similar apps replace traditional customer service methods, and the booking process is a substitute for usual taxi queues and hailing a taxi.

It is also the case that newer service providers use a wider range of vehicles, and their presentation and cleanliness improves on that of taxis.

Praise for the Uber service has come from the President of the Taxi Drivers Association, Michael Jools, who has said: "We as taxi drivers would love to offer the service that Uber does: It's cheaper, it's as efficient and it's better. But we are bound by a whole range of regulations and nonsense that prevents us from delivering the service that customers deserve".<sup>37</sup>

Enhancing price competitiveness: Uber's Uber X service in particular has provided for lower priced transport services compared to taxis.

*Market entry (and exit):* the Uber product provides the opportunity for anyone with a vehicle to offer a transport service. Many appear to have taken up this opportunity, although statistics are not readily available.

What we learn from this is that regulations applied to any industry, including the communications industry, must be adaptive and as GSMA suggests, "functionality-based rather than based on structure or technology."<sup>38</sup> Adopting this approach ensures that innovation and the often high risk investments required to support innovation continue to thrive.

As the GSMA states "because digital ecosystem markets are dynamic and complex, regulation also needs to be flexible. It needs to accommodate rapidly changing markets and

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<sup>&</sup>lt;sup>37</sup> "UberX versus taxis: Why the time for taxis is over" News.com.au March 24, 2015, http://www.news.com.au/finance/business/travel/uberx-versus-taxis-why-the-time-for-taxis-is-over/news-story/cb1e2d9dc77aa29dd88646cbae1d5d4e

<sup>38 &</sup>quot;A new regulatory framework for the digital ecosystem", GSMA, 2016, pg 5, http://www.nera.com/content/dam/nera/publications/2016/NERA\_GSMA\_Full\_Report.pdf



technologies and create enough regulatory confidence for companies to take risks. In general, performance-based approaches are superior to prescriptive, ex ante rules."39

#### Failure to adapt regulatory frameworks risks preventing innovation

The potential impact on innovation caused by legacy regulation can be seen in relation to IOT. If today's legacy communications regulation is not adapted to IOT it will stifle innovation and impose an unnecessary burden on service providers for little or no gain to consumers or competition. IOT will apply across a range of industries including transport/logistics, agribusiness, health and personal wellbeing, through to utilities with the need to access real time information to better respond to demand, saving money and resources. Legacy regulation, such as number portability or interception requirements has the potential to impede the development of IOT to the detriment of consumers. This is because the application of these regulations, and certain obligations in the Telecommunications Consumer Protection Code may not be required to protect consumers of IOT services so their imposition would impose unnecessary cost and complexity on IOT service providers.

A best practice approach to regulation should be adopted to ensure it doesn't impede innovation and IOT; and new regulation should only be applied where it is absolutely necessary.

Misapplying the current sector type regulations in a blanket form is unnecessary and will constrain the benefits of these innovations. Therefore, the ACCC must consider the appropriate form of regulation in this new economy and take a cautionary approach to any new intervention.

As noted by Telstra elsewhere, where possible, other options such as consumer education or industry self-regulation should be explored before pursuing government regulation.<sup>40</sup>

# In response to increasing competition and the emergence of new global entrants, regulation in many areas can be pulled back

The future development of the communications sector and its ability to continue to deliver benefits to consumers depend critically on an efficient, supportive and up-to-date regulatory framework. The more quickly and cheaply new technologies and offerings can be brought to market, the greater the benefit for consumers. This requires a regulatory environment which minimises distortions to producer and consumer behaviour, keeps the cost of compliance low, and adapts readily to a dynamic and constantly changing market.

#### Domestic regulation is out of date and asymmetric

With the emergence of the digital economy, customers want access to more apps and content than any one company can provide, and as a result, no single firm controls all parts of a customers' communication experience. Legacy regulation is quickly becoming dated and asymmetric, given its focus on a small subsection of domestic suppliers who represent only a

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<sup>&</sup>lt;sup>39</sup> "A new regulatory framework for the digital ecosystem", GSMA, 2016, pg 5, http://www.nera.com/content/dam/nera/publications/2016/NERA\_GSMA\_Full\_Report.pdf

<sup>&</sup>lt;sup>40</sup> "Telstra response to the ACMA paper on the Internet of Things- Emerging issues in media and communications" Telstra corporation Ltd, 14 December 2015,

http://www.acma.gov.au/-/media/Regulatory%20 Frameworks%20 and %20 International%20 Engagement/Issues%20 for %20 comment/pdf/loT%20 Telstra%20 Response.pdf



minor subset of the overall value chain. As the GSMA observe, this discriminatory regulation is harming competition and reducing consumer welfare.<sup>41</sup>

#### SMS regulation

A significant example of asymmetric regulation in Australia relates to instant messaging, where OTT messenger services have little to no regulatory oversight while SMS messages provided by telecommunications companies attract price regulation. According to Informa's World Cellular Revenue Forecasts 2018, global annual SMS revenues will fall from US\$120 billion in 2013 to US\$96.7 billion by 2018, due to increasing adoption and use of OTT messaging applications.<sup>42</sup> SMS regulation imposes a regulatory burden on traditional carriers and does not adequately take into account substitutes embraced by consumers such as OTT messaging services.

Unfortunately, such a situation is not unique to Australia. In the European Union, as a result of regulatory asymmetry between mobile operators and OTT providers, mobile operators have incurred regulatory and compliance costs.

Such outcomes are an unnecessary by-product of outdated regulation which has not kept pace with changing market dynamics. This ultimately impacts consumer benefits, by distorting investment and innovation in the provision of such services, as well as competition more generally by giving substitute services a free ride.

#### STS regulation

(STS regulations set out highly prescriptive criteria for voice services that qualify as an STS for the purpose of meeting other regulatory compliance obligations (such as the universal service obligation). However, the emergence of new technologies means there is an increasing variety of voice services in the market that don't meet the STS criteria but are nonetheless enthusiastically adopted by consumers as direct substitutes – such as emerging OTT voice services (or VoIP). Carriers must bear additional regulatory costs to ensure their voice services comply with STS requirements, while OTT voice service competitors don't face the same burden resulting in an uneven playing field.

This market study provides a timely opportunity to reassess and review legacy regulation to determine whether the assumptions held when specific regulation was introduced continue to apply.

#### Keeping pace with market changes

The emergence of global OTT players, content providers and hardware device manufacturers such as Google, Facebook, Netflix and Apple has led to increasing choice for consumers and direct substitutes for many traditional telecommunications services. As a result, the importance of traditional telecommunications service providers has reduced significantly.

<sup>&</sup>lt;sup>41</sup> "A new regulatory framework for the digital ecosystem", GSMA, 2016, pg 5,

http://www.nera.com/content/dam/nera/publications/2016/NERA GSMA Full Report.pdf 42 "OTT app use undermining SMS revenue" telecoms.com 13 November 2013, http://telecoms.com/197721/ott-app-useundermining-sms-revenue/



With increased competitive intensity resulting from greater customer empowerment and the entry of global OTT players into the market, regulators should reconsider when, how and who to regulate. Telstra believes there is considerable opportunity for competition regulation to be rolled back and for lighter-handed regulation, including industry self-regulation, to address the policy objectives relating to consumer protections. While there is an ongoing place for consumer safeguards in regulation, greater dynamism in the communications sector signals scope for a less prescriptive and more flexible regime which can better adapt to the evolving market.

In important consumer protection matters such as privacy, security, intellectual property rights and data portability, regulatory frameworks must adapt to the market by recognising new competitors and being competitively neutral. Like services should be regulated alike, to provide fairness and clarity for competing industry participants and to avoid the regulatory gaming and economic distortions that arise if essentially similar services delivered via different technologies are regulated differently. The Department of Communications and the Arts has highlighted the need for regulation to be as technologically neutral as possible, to prevent distortions arising from arbitrary distinctions between similar services.<sup>43</sup>

In addition, the domestic industry should proactively coordinate to develop open standards, and seek international alignment, to prevent the development of closed standards which are owned or monopolised by large global conglomerates that will leverage value out of the domestic industry.

# Further changes to regulation can be made in response to fundamental changes brought about by the nbn

As the rollout to nbn progresses and the competitive landscape changes, the ACCC needs to consider whether existing regulation remains appropriate. It may also be appropriate for the ACCC to set out a long term plan on its approach to monitoring nbn co. in order to provide access providers and access seekers with regulatory certainty going forward, including on investment, pricing, nbn scope, service levels non-discrimination and interoperability.

#### We need a long term plan for legacy access regulation as the nbn rollout progresses

Structural separation means that the ACCC should no longer be concerned with Telstra's vertical integration however, as stated elsewhere in this submission, we consider that the level playing field provisions (or equivalent) should apply to all network providers to ensure competitive outcomes. Once the nbn roll out is complete, regulation that was introduced to address concerns about vertical integration should be revisited.

To date the ACCC has not demonstrated any tendency to adjust regulatory positions in response to the migration to nbn – this position seems increasingly untenable as the rollout increases in intensity. An example of this is the recent ACCC Draft Decision to continue to include 289 exchange service areas in its WDSL declaration despite the fact that there is significant competition in those areas.

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<sup>&</sup>lt;sup>43</sup> "Deregulation in the Communications Portfolio Policy background Paper No.1", Department of Communications, 2013, page 6. <a href="https://www.communications.gov.au/publications/deregulation-communications-portfolio-policy-background-paper-no1">https://www.communications.gov.au/publications/deregulation-communications-portfolio-policy-background-paper-no1</a>



#### Interoperability needs to be addressed

The barriers to entry for RSPs who wish to provide services over non-nbn networks are significant where additional costs must be incurred to interface with those networks. The establishment of nbn co. as a 'wholesaler of alternative networks' would address this, and could also assist with minimising compliance costs for non-nbn network providers.

Telstra considers that the most effective means of minimising the number of network interfaces that RSPs must integrate with in order to provide services to end users is for nbn co. as a 'wholesaler of wholesalers' to take responsibility for translating third-party infrastructure ecosystems into nbn-equivalent networks and interfaces that RSPs can access without the need to develop new systems to connect with each additional network.

Cost discipline and efficiency at the wholesale level, and vigorous retail competition resulting from all RSPs being able to compete for all customers serviced from the same basic set of wholesale services, will maximise the positive effects of competition and deliver beneficial outcomes for consumers.