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Fixed and Wireless Broadband: the Oxygen for Australia's Digital Economy

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Hello! Thank you to the AIIA for inviting me to speak today.

Optus is delighted to have been a long-term supporter of AIIA.

I'm sure many of you know Ross McLeish, our government sales leader in Queensland and currently serving as your AIIA Treasurer.

Let me also introduce Samantha Kennedy. Samantha is Optus' Director for Queensland so she's here to help you!

The last time I spoke at a forum like this here in Queensland was in February 2011.

It was when Queensland was experiencing some real trials, such as the floods and Cyclone Yasi.

Our Queensland team did some exceptional work during those disasters – working around the clock to keep our networks live and to help people in need.

Optus also housed Kids Helpline staff at its offices during the floods. I believe Tracy Adams, the CEO of BoysTown and Kids Helpline is here today. I'd like to commend her for their fantastic work.

It's been great to see Queensland's economy bounce back since those disasters and record some stunning growth figures.

I think it's fair to say Optus has been both a beneficiary from those successes and a contributor as well.

Optus has always been about choice and competition. It's been our mantra for the past 20 years since we started as a business.

Particularly here in Queensland, we've spent big over many years to deliver on that promise. We've also had a great record of working with government here.

Let me give you some examples.

We were able to build our national Facilities Management Centre here in Brisbane on the back of Government commitments to buy services.

We deployed our first competitive DSL infrastructure outside of metropolitan areas here in Queensland.

In 2001, we built a fibre cable between Brisbane and Cairns. The Reef network.

In 2005, we extended that fibre under the SmartNet initiative. That created new network points of presence in places such as Cairns, Townsville and Rockhampton.

It also paved the way for lower prices, more choice and better services.

We have spent more than \$1.6 billion dollars in our fixed and mobile networks in Queensland. This includes a thousand 3G mobile sites.

We are now super charging our mobile network by reallocating spectrum from 2G to 3G. This will allow us to deliver faster and more reliable mobile voice and data services across the state.

We certainly look forward to continuing to provide competition – and increasing our investment in coming years.

Vision for a national digital economy

Now, today I'd like to outline our vision for the future of communications in Australia. I want to describe what we see as a truly national digital economy.

I also want to talk about the oxygen that will power that digital economy and take it to every corner of this state and Australia.

That oxygen is high-speed broadband over both fixed and wireless networks.

In his 2011 State of the Union address, Barack Obama announced plans to make high-speed wireless available to 98% of Americans.

He said: “This isn’t about faster Internet or fewer dropped calls. It’s about connecting every part of America to the digital age.”

We could just as easily say “every part of Australia”.

And when you put it that way, you start to realise the scale of the challenge – and the opportunity – that we have at hand.

What is the digital economy?

As a starting point, it’s important to define the term ‘digital economy’.

To me, it’s any business or productive activity that is enabled by digital technology.

It’s everything from online shopping to a retailer using the latest in RFID technology to accelerate its supply chain.

It’s a farmer checking grain prices online or using remote sensors to know when to water his fields.

It’s a web design company in the city literally building websites for clients.

We do have a digital economy today. Absolutely.

But it’s not as far reaching as it could be. As William Gibson once said:

“The future is already here. It’s just not very evenly distributed.”

So, let me give you glimpse of what a truly national digital economy might look like.

Scenario 1: The connected consumer

As you can see, in this new digital life consumers can be highly mobile and connected.

Australia already has the second highest penetration of smartphones in the world.¹

We love our tablets as well. Some 2.6 million of us now use them regularly.²

As the video highlighted, these devices make our lives easier.

We can use social networking and the location awareness of our phones to connect with friends nearby.

We can find a restaurant with a deal that’s been personalised just for us.

We can watch entertainment and video on our way to work.

If we happen to be out and miss our favourite program, we can record it to the cloud. Then we can watch it on our smartphone on the way home.

We can shop online and access a huge range of e-government services.

¹ Google and IPSOS The Mobile Movement

² Telsyte

Imagine casting your vote in next Saturday's election on your tablet via a dedicated e-voting app.

We're all becoming more connected. We expect to be able to get online and be part of the digital economy whether we're at home, in the office or on the move.

This expectation will only grow in the future. Surveys show Australians want more.

Scenario 2: The connected enterprise

What about the future for companies and their workers?

Since we're in Queensland, I'll focus on the example of a mining business with a headquarters here in Brisbane and extraction facilities in the Bowen Basin.

A truly national digital economy is already transforming the way that sort of business operates.

It is establishing much higher quality communications between its head office and remote sites. Also with counterparts overseas.

It is easier to diagnose problems in the field and track assets.

Better machine-to-machine communication is improving efficiency and safety.

Employees are getting faster and more reliable access to applications and information.

This is certainly going to include miners on site in remote locations.

Towards a higher bandwidth future

In the future we're heading towards, we are always connected.

We are never off the grid.

We'll have everything we enjoy now faster and easier – and plenty of things that I'm sure we haven't even thought of yet.

Bandwidth – that essential oxygen for the digital economy – is spreading. It is getting more ubiquitous, faster and more reliable.

This is being driven by two key forces.

The first is the National Broadband Network.

The NBN will help to lay the foundations for a national digital economy and ensure it is – as William Gibson might appreciate – more evenly distributed.

It will take fibre deep into regional areas. It will also be extended using wireless and satellite services.

Optus is a supporter of the NBN. It is a nation building project that will grow our capacity and deliver enormous productivity benefits.

The second major force is the extension of our wireless communications infrastructure – especially our mobile networks which are now moving to 4G.

According to a new study by Cisco, Australian total mobile data traffic alone is expected to grow by 14 times in the next five years.³

4G will be a huge driver of that.

Focus on 4G

Let me briefly focus on 4G, which is also known as LTE, because it's critical to the expansion of the digital economy. It will be key to providing that new oxygen.

4G is the next step up from our current 3G mobile networks, and it's fast.

It's like going from a garden hose to a fire hose.

Commercial services will run at up to 40 megabits per second.

Optus began investing in the 4G future last October. Here's a glimpse of what that investment will look like.

We will launch our first 4G services from April.

Those will be in Newcastle and will be followed by Sydney, Melbourne and Perth as 4G devices become widely available mid-year.

³ Cisco Visual Networking Index (VNI): Global Mobile Data Traffic Forecast, 2011–2016.

I'm pleased to announce today that Brisbane has been added to our rollout schedule and will gain 4G services from Optus from early next year.

Investing in this 4G future and true competition is also the reason behind our planned acquisition of Vividwireless, which we announced recently.

In addition to rolling out 4G in metro areas, we are the first carrier to be trialling 4G services using the 700 megahertz spectrum band in regional Australia.

This is the digital dividend spectrum that will become available as analogue TV is switched off.

Our trial was in Bendigo, in regional Victoria over the past few months. I'm pleased to announce today that it has been a success.

We achieved peak download speeds of over 70 megabits per second and got very low latency. That wasn't in the lab. It was in a real town.

This is significant for two reasons.

First, opening up the use of 700 megahertz spectrum will greatly increase our capacity to run high-speed wireless services in Australia.

Second, the lower 700 frequency bands will deliver better coverage, especially indoors.

So, it's clear we can look forward to a higher bandwidth future. But what do all these trends mean for you and Queensland?

Insight 1: Fibre and wireless are complementary

The first message I'd like to emphasise today is that fibre and wireless are complementary technologies. For Optus, it's not an 'either / or' proposition.

As you plan for the future, you need to consider them together.

To return to my oxygen analogy, high speed broadband feeds the digital economy for both mobile and fixed.

They feed off each other.

We are currently completing a major research study into how companies will use technology in three to five years.

82% of respondents say they expect to need more bandwidth to drive their businesses⁴.

83% also say they plan to issue tablets to staff to access the work network.

There is clearly an enormous demand for bandwidth combined with mobility.

But how many people are developing strategies for this?

⁴Preliminary findings based on 470 respondents across IT, marketing and finance

In our research, we asked how many organisations were planning for the arrival of the NBN in particular? What do you think the figure was?

Only 8%! That's despite believing that getting access to more bandwidth would deliver enormous benefits. That's far too low. You need to have a plan now.

Insight 2: Adoption goes viral

My second key message is that the adoption of new technologies tends to start slow then go viral and quickly hits a tipping point and becomes universal.

By looking at the initial slow adoption rates and misreading the signals, it's easy to be left behind.

I can remember when SMS was introduced. Yes, I've doing this for that long!

It was originally picked up as a niche application by a cohort of 20 to 30 year olds.

We used to conduct research to try to work out what people were doing with it and how to broaden its appeal. Then suddenly it exploded and became mainstream.

We're facing a similar situation today. Before your marketing team finishes their research, your customers will already be using the next wave of technology.

You need to think about what truly high-speed broadband over fixed and wireless networks is going to mean for your business or organisation.

What applications will it enable? Which ones will take off? What's the killer app?

This is the new competitive battleground. Your future success will depend on how well you master the applications that are enabled by high-speed networks.

We are rolling out 4G right now.

The NBN is coming. You can't afford to get caught out.

This future – this truly national digital economy – will be here sooner than you think.

Insight 3: How to accelerate the digital economy in Queensland

My final point is that there are steps we can take to make the national digital economy a reality sooner here in Queensland.

Let me touch on just two.

Spectrum

The first involves the digital dividend spectrum I discussed earlier. This spectrum will be essential to ensuring competition in 4G services outside of metro areas.

That competition will be vital in Queensland particularly given the large proportion of the population living outside the state capital and coastal conurbations.

The challenge is that – for historical reasons – only the incumbent has the spectrum now to provide 4G in many regional areas.

This will start to be resolved in November when the government auctions the digital dividend spectrum.

Unfortunately, that spectrum may not be available to operators who want to use it to launch commercial services until as late as 2015.

That's three years. Let me be clear, it doesn't need to take that long.

We already have digital dividend spectrum sitting idle across about 40 regional towns – many in Queensland. More spectrum is becoming available every month.

To drive real competition in 4G services in regional Australia, there is an urgent need for broadcasters and government to find a solution.

Once it is resolved, we look forward to working with government to ensure all Queenslanders can gain access to competitive 4G services as soon as possible.

Get on board

Queensland has led Australian states to foster investment in new communications infrastructure.

This state can continue to be at the forefront of using high-speed and truly ubiquitous broadband to take a lead in the new digital economy. It can open up new opportunities for consumers, or change the way a business operates.

Good communications is a differentiator that helps businesses decide whether to invest in Queensland, Western Australia or Brazil.

It is an asset for tourism. Fast broadband helps operators run their businesses. It will also be a real selling point that guests can remain highly connected anywhere.

Many other sectors will be impacted as well. Opportunities will open up for your creative and ICT industries in particular.

World-class infrastructure will also be very important for building on Queensland's status as a gateway to Asia.

This is something Optus is well placed to help with. You may have noticed that our parent, SingTel, has restructured its business globally. Optus Business is now part of a global ICT business that has 15,000 people across the region.

Underlying these changes is a view that technology, communications and the global economy are now borderless. So we are becoming borderless too.

Now more than ever, we can be Queensland's gateway to Asia – just as you are the gateway to Australia for so many leading global companies.

Conclusion

Thank you for your attention today.

Let me conclude by re-iterating some of the key points I've made today.

- We are committed to continuing our investment in Queensland, and our history of partnering with this state to provide competitive infrastructure.

- We will be bringing 4G services to Brisbane from early next year as part of our national LTE roll-out.
- We have successfully trialled LTE on the digital dividend spectrum in Bendigo. It works and we're excited by the potential to bring competition in 4G services to more locations as soon as possible.
- But we need the broadcasters and the government to find a solution that will allow us to gain access to the digital dividend spectrum sooner.
- I've made a case for planning now, and acting now, to ensure that your business and Queensland stays at the forefront of digital innovation.

Our higher bandwidth future and the truly national digital economy is upon us. It's time to get on board and embrace what it can do for your businesses and Queensland.

This is yet another transforming change, like mobile and the Internet were. Far reaching fibre plus high-speed wireless will be a burst of fresh oxygen.

Breathe deep. Make the most of it.