



**Paul O'Sullivan, Optus Chief Executive**

**Building a Digital Superstructure for Australia**

**CeBIT**

**31 May 2011**

---

Good morning, everybody. Thanks for that wonderful introduction.

I'm here to represent Optus who were born to bring competition to the market, who came from nothing 19 years ago and who only survive today because of our ability to anticipate technology change and to turn that into a commercial opportunity.

That's going to be the theme of my talk today and I hope you find it insightful, in terms of how the number two operator - one of the biggest investors in technology in Australia - thinks about the market today.

Importantly, again I'd of course like to acknowledge the presence of our distinguished guests. To first of all acknowledge the presence of the Premier, the Honourable Barry O'Farrell, the presence of the Federal Minister, the

Honourable Senator Stephen Conroy. Mr Stephan Weil the Lord Mayor of Hanover, we're glad you can be here.

Mr Heinz Paul-Bonn the Vice President of BITKOM. And of course I wanted to thank Jackie Taranto who's the energy and the brains behind today's event. And to congratulate all involved in CeBIT, and Jackie especially, on the 10th anniversary.

Now, if like me, you're in the technology industry, the numbers one and zero always have a special significance, we were born in that binary world. So I thought at the beginning, to sort of illustrate the pace and the need to anticipate the pace of change in our industry.

I think well what was it like before CeBIT? We were founded just under 20 years ago. And so, at this time 20 years ago - two times 10 - Bob Mansfield, the first Chief Executive for Optus was running around with a mobile - and I use the word advisedly - a mobile phone. From the Optus vault, here is Bob Mansfield's mobile phone. I'll throw it at anyone who wants to heckle me.

Ten years later, which is 10 years ago, we were so obsessed with getting away from bricks that as an industry we were focused on miniature. And this is what we were selling, our best selling device 10 years ago, because of its size, because it fit easily into the pocket, a miniature.

Imagine giving that today to someone wanting to post to Facebook or browse the internet. And indeed that's been the big change because we've gone from miniaturisation to, at this stage 10 years later, focusing very much on a big screen. And having that connectivity to the internet.

What will a speaker be showing you in 10 years time? We can only guess but one change I think I can confidently predict is that we will have something that is foldable. An electronic version of paper. I've already seen it. A number of our inventors are working with electronic paper screens that expand and also shrink, depending on the requirement you have and they fit easily in your life.

That sort of leads nicely, that thinking about just how fast our industry changes and how we need to anticipate into, building on what the Senator just spoke about. Building a digital economy and a vision for Australia.

You might be here as a CIO, looking after your industry and your company's needs. You might be here as an entrepreneur looking for a business opportunity. You could be here as a media commentator looking for the key trends in the industry. But all of us, all of us are trying to understand how we build on the policy settings and the government initiatives that the Senator outlined, to create a truly digital environment.

It's interesting that the Economist this week has a special feature on Australia and talks about its potential to be the new California. Can it demonstrate an ability to lead the world in innovation and in using the new technologies that are being created.

So what I'd like to talk about for my brief session today is how do we pull that down as an industry into reality? How do we go from the conceptual to the actual? And to build on the technologies that are being developed, the policy settings we put in place, the investments in new technology. I believe as an industry we need to create a new digital superstructure.

Why do I use the word - and it's not a nice word - superstructure? Well it's something that has to be built upon a base and the base really is simple networks that we've got running today. Fixed line networks, the mobile networks, increasingly the NBN. Indeed the networks that many of you operate as CIOs or increasingly as consumers in your own homes.

We've invested very heavily in our network over that time, in fact, over the last five years, two billion dollars in rolling out more advanced mobile technology. It means the extra spectrum that has doubled our capacity to the capital cities, with more metro households. You know we have 80 percent fibre backhaul to our metro sites with the increasing coverage.

But although all the carriers are investing in new infrastructure, that alone, and the Government's investment in infrastructure will not be enough to deliver the sort of digital economy that we talk about and that the Economist speculates on.

So what I'm going to talk about is the need to create a superstructure which focuses on four things. First of all how we create and leverage network intelligence. Secondly, how we create the right settings for security and protection so that people not only are safe but feel safe, and willing to use the sort of applications you saw on the video.

Thirdly, you in this room who run businesses will have to have a new set of policies and behaviours. Because we are not yet in Australia driving the right level of technology uptake in our businesses. And finally, we will continue to need a strong investment and regulatory regime that drives world class innovation.

Now I can talk at length about technology but this morning I want to talk about people. I want to root everything I say in Australians and how they live their lives. And so as I look at the industry and in our research, we see three big trends in how people are using technology.

First of all how mobile phones are moving from the ear to the eye. Second of all about how consumers are moving from being active consumers to proactive participants in changing products. And thirdly how the workspace is moving from the desk, increasingly to the device. All these trends are like a huge opportunity that exists for us in driving Australia.

There's a great saying in business - follow the money. Well I've been doing just that over the last couple of months. I've been in Israel to visit a large number of tech start ups. And last week I was in the United States visiting a large number of companies who are working to provide some technologies and solutions to ride the new broadband networks.

Some of what I saw for example was a massive amount of money globally. They have location based technology leveraging things like network intelligence. Which will completely change the business model in media and advertising.

Increasingly companies will be knowing where you are, linking to our segmentation inside our customer databases and your preferences, send you advertising that is directly relevant to what you are doing right now and what you want. And advertisers will pay strictly on the basis of how that is used.

This is not some future view of reality, these are companies coming to market right now and will have a profound impact on use - those of you who are journalists in the room, publishing your content and where it is viewed.

So let me start my job by diving a bit deeper in to those three trends I just talked about. Let me start with the whole idea of the digital life. I'm sure many of you in the room - we're all increasingly dependent on our digital devices and on our phones, our tablets, our PCs and the voice and video recorders.

But for the first time since Graham Alexander Bell invented the normal telephone it has gone from being used on the ear to being used with the eye. Increasingly, these are email browsers, they are internet surfing devices that have the ability to allow you to do almost anything you want in your life.

Things which we used to do physically are increasingly being digitised. There are products and services that used to involve shops, DVDs, paper and now all being delivered electronically.

A good example is content. The content you once had to be at home or in front of a TV screen to watch, is now delivered to you on a mobile. During the World Cup last year in South Africa we delivered nearly 400,000 streams of soccer games to Optus mobile phone customers.

Increasingly the only difference between the computer, your mobile phone and your TV is the size of the screen. The convergence of digital - and we've talked about it and you saw it in the Senator's video - is happening right now.

That's also manifesting a change in the way that people use communication. We're communicating and collaborating differently. I don't need to talk in this room about the amazing uptake of things like Facebook and LinkedIn. Or indeed in the corporate world we use sort of things like Cisco's Blog.

But if we dive below that and look at what people are actually doing it's quite revealing. Facebook says it has 500 million users globally. But did you know that 250 million of those are mobile phone users?

We have a business in Indonesia which has just celebrated 100 million mobile customers. And I know from personal experience in that business that Indonesians are among the world's largest users of Facebook in terms of the number of hours per month they spend posting to it.

But what's also revealing is that Facebook users who use mobile phones are almost twice as active on their mobiles as the traditional mobile users. You know in our industry we frequently see new trends and behaviours manifested initially in younger generations.

A secondary trend that I think we can all look to take notice of is the rise of what we call the prosumer. What do I mean by prosumer? That's someone who's moving from being strictly a consumer of information into someone who's now making it. They also produce.

You'll know these people, they're highly connected, they have several different devices, they're highly mobile. They have multiple opportunities during the day to post to social networks. They no longer passively consume, they're pushing out all the time. They're sharing more and more about themselves.

To someone of my generation it may seem trite but what we would consider excessive sharing is now considered normal levels of sharing. But very importantly for all Australian businesses these people are blogging about our products and services.

They're blogging about government policy. They are shaping opinion in a way that is far more powerful than the traditional way we've spent on advertising. In fact it is so powerful that at Optus two years ago we started moving people out of our call centres and into proactively surfing these blogs and intervening in real time to resolve customer complaints and issues.

But for everyone in this room these prosumers are not only an opportunity they're also a big challenge. These people are frustrated with the way Australia operates today. They're frustrated they can't use their devices, their personal devices, at home and at work. They're frustrated they can't get their work applications on any device.

These are employees that particularly want to use their smartphone on your work network or to use your work tablet to watch movies on the commute home. It's quite amazing you know that despite the big shift in the way that people communicate companies are still arguing about whether to put email on smartphones.

The reality is that prosumers, particularly younger cohorts, are surging way ahead in terms of technology usage and attitude to where many businesses are at today.

So that leads now to the third thing I want to talk about which is the future of work. What does all of this mean for the way we work and the way we operate? Well we're a company that makes our living by understanding these trends and by using these behaviour interactions with technology to create opportunities.

So we commissioned an extensive piece of research to understand how are Australian companies thinking about the new technology and how are they going to use it. This will be published next week. It's going to be called the *Optus Future of Work Report*. So as the CEO here a few of the insights and thought I'd share them with you today.

What did we find out? These are surveys of Australia's businesses. We found out four things. The first one is we can expect very strong growth in Australians desire to work from different or multiple locations at hours that suit them.

Supporting the Government's focus on tele-working, 42 per cent of the IT managers we surveyed said that they expected their organisation would offer remote working from any external location. I don't mean from someone's home, I mean from any external location within three to five years.

Secondly we found that whilst PCs and laptops would continue to be important new devices, particularly smartphones and tablets, would increase and they'll be pervasive. Thirty-seven per cent of respondents already issuing tablets to staff to let them access the network. In three to five years the figure will be 84 per cent.

Thirty-five per cent of the respondents said they're not just going to limit it to tablets though. They're going to use it around smart applications. For example it's web based video conferencing applications on smartphones and tablets. So if a

third of IT managers are saying they're going to do that in the next few years that's going to drive dramatic change.

The reality is that teleworking is coming closer and closer both on networks like the National Broadband Network and on mobile networks. We've summarised these trends by saying that work is moving from being located at a desk to being located with a device.

And that leads now to the third finding in that, which is that IT managers see themselves allowing staff increasingly to use their personal devices to access work networks. Our surveys show that we can expect to see a doubling of the number of personal tablets that staff will want to bring to work, from 25 per cent to 55 per cent.

Obviously with this there's going to be a huge security issue for many of us and we've worked with many companies in the enterprise space today on firewalls, virus checking, authentication in order to ensure these devices can be used securely.

The fourth big trend we picked up in the survey is the rise of social media and with social networks inside the workplace. Today many companies block access to social networks. Over the next three to five years many businesses say that they will open these up although they will continue to monitor how their employees use them.

Twenty-three per cent of companies we surveyed said they're set to provide Twitter or social network type blogs internally to staff up from just four per cent today. And we're a great example of that. You know at Optus we recently ran an

online session where we asked our employees to use our forum, our blog forum and to post their comments on what it's like to work for us.

What could we do better? What could we change? Astonishingly more than 2500 employees joined in that conversation. That's one in four of our workforce. And they produced in summary 450 changes to the way we work inside the organisation.

There is no way we could have run that sort of process so openly, so democratically, so honestly and transparently without being able to use social networks.

So the trend for Australia, how people are behaving is a signpost for us as to where technology is going. That leads to discussing what do we need to do as an industry to build on the foundation to be created by government and by technology ventures to make sure that Australia realises its potential to being a new California in terms of being a digital leader.

I'd argue, as I said earlier that there are four critical elements to creating the necessary digital superstructure to ensure we can cross the digital divide.

They are a layer of intelligence that sits across a network. Tools to prevent and to protect individuals. New work based policies and very important regulation that drives innovation. Let me touch quickly on each of those. There is a massive amount of intelligence being created inside networks today.

Optus is a great example. In the last few years we've invested very heavily to leverage the intelligence that resides in our network. It's opening up some extraordinary possibilities as we get to understand our customers' locations and preferences.

At any given time with nine million customers, we know where one-third of the Australian population is right now. We can tell you on Saturday night, what's the most popular bar or on Saturday or Sunday what's the most overcrowded beach.

Or we can show you using technology we developed last year which tracks the speed at which customers move across our cell sites overlaid on maps. We can tell you right now how traffic is moving - and let me say - all over Australia. We can see that even here in Darling Harbour there's a cluster this morning of high spend mobile users.

In the last financial year we spent literally millions of dollars on developing new digital services and applications. But very importantly in common with multiple mobile carriers globally, we're investing very heavily in what we call leverage tools. That allows us to have the knowledge of where you are and narrow you to our profiling of you as a customer and indeed your permission to us to use application.

On the business side, this is making it possible for companies to do things like assign a job to someone in the field based on their location and skill set, relevant to a customer call that has just arrived. Or for consumers, say I've got no idea where I'm standing right now, what are the sorts of restaurants around me that have been given the best rating by Optus' customers. Network intelligence is essential if you want to develop these applications.

But it's certainly useful to application and content providers, we have to drive some commonality across the industry. The second point we make is that to make sure we can individually secure it. And indeed we've had a lot of publicity on this in Australia in the last few months. It's not just that people are pretty safe on the network. They have to feel safe whenever they use our digital networks.

Safety tools include things like identity management, encryption, authentication and escrow rules. We're launching more and more services at the enterprise level but also the consumer level to make sure consumers feel safe.

A great example of this is Optus Smart Safe. This is a highly secure cloud service that consumers can use to save their data and to access it whenever they wish to from any device.

We've invested millions of dollars in making sure that things like customer credit card details are encrypted and that it's all protected by technology. This is designed to prevent the very episodes that you read about in the press by one of our competitors.

We strongly protect the privacy of information of our end supply customers. And as I said we're working with business to overcome the security issues associated around employees with their personal devices on the network. The importance of security in a digital economy cannot be overstated. It is essential for fast uptake. I take no pleasure from watching a competitor get themselves in trouble on this type of security issue.

It frightens everyone away from using digital technologies. What we need as an industry is a set of national standards that we all adhere to that reassure the customer its okay to use these new technologies.

The third major change that you can drive is how people want to work and the policies and behaviours to support them. Employees can't take advantage of the national broadband network at home for example if they are not allowed to work at home. Our research shows that employees are asking for more flexibility. And indeed business are having to give it to them.

Interestingly in our survey, letting people work more flexibly wasn't just about technology and productivity. It was actually going to be increasingly essential to winning the best talent. Forty six per cent of survey respondents believe it is important or essential to give people options about where they work.

And indeed at Optus today, while we refer to the fact that we are a large broadband access based company, 60 per cent of our staff use flexible working arrangements and our engagement and productivity have gone through the roof.

We're also going to find the need for new advanced regulatory settings. You know you can have the best technology in the world, but without the right regulatory settings you won't get the innovation or the forces that are required.

And as history has shown in Australia, the key to innovation is to create a level playing field for competition. I applaud Senator Conroy for the pioneering work he has done to create and improve the competitive environment in the technology industry in Australia.

He has been the most reformist of ministers since Optus was introduced in 1992 and he deserves great credit for that achievement.

But we need to keep looking ahead. Whilst great work has been done we now need to move to the next level. We need a far more rigorous debate in Australia about how to ensure there is a level playing field for competition, at a level applications and context.

The key concept here is open access. We need to ensure that all applications developers and content providers retain open access to everyone's digital networks. Whether they're a journalist or developing an app for use at work. And vice versa that every network has access to them.

There is a real threat here, that we allow those with deep pockets to try and tie up content and apps to create war guns, to create content monopolies which restrict people's access to content and innovative applications. As we all know, there will be massive new areas of opportunity with the NBN investment.

We have to support these with equal investment in new regulations. We're seeing this overseas where regulators such as Hong Kong and the United Kingdom have responded to this threat by introducing new rules to ensure that premium quality content cannot be locked up on an exclusive basis. And it's not just the UK, the United States, France, Italy, Spain have all taken similar steps.

We as a company are indeed abiding by similar sort of regulations in Singapore. And Optus as a company that is frequently the spokesperson for competitive forces in the industry, we are particularly concerned that the proposed merger of Foxtel and Austar will create a further barrier to competitively accessing content.

And we urge the ACCC to use their merger approval process to evaluate creating must share content provisions. We believe Australia must consider similar models with the OECD leading economies. Both for news and entertainment style content and for sport and applications. This is what we need to build the right superstructure for the digital economy.

Our minister has done a great job of catching us up and getting over many of the delays of the last 15 or 20 years. But now that we're back in the race, let's keep moving and staying in front.

Let me conclude by looking at the big picture. As one of the big investors in communications in Australia, \$1.1 billion a year every year is what we are investing in new networks infrastructure in Australia.

We're really pleased that Australia's got a lot of positive ingredients to create a digital economy. But we also recognise that we won't fully realise our potential to become a leading international digital powerhouse unless we put in place the key elements of the superstructure I've just described.

This involves focusing on creating intelligent national networks. Ensuring common security standards across the industry. And working with all of you to put in place new policies in the workplace and creating a regulatory environment that stays in front of technology and encourages innovation through competition.

There's a lot of that in this room here today. You know we all have a duty to make sure we stay up to pace with technology. Every one of us can adapt to these changes because after all the phone is moving very quickly from the ear to the eye.

The workplace is shifting from the desk to device. The passive consumer is becoming a natural shaper of what you may think are new online markets.

The future is not something around the corner, the future is now. But we believe Australia can lead the digital innovation economy and Optus the answer is of course, yes, advance Australia, thank you.