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JOINT COMMITTEE ON THE NATIONAL BROADBAND NETWORK

Rollout of the National Broadband Network

THURSDAY, 28 JULY 2011

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JOINT COMMITTEE ON THE NATIONAL BROADBAND NETWORK

Thursday, 28 July 2011

Members in attendance: Mrs D'Ath, Mr Fletcher, Mr Oakeshott and Mr Symon and Senator Stephens.

Terms of reference for the inquiry:

To inquire into and report on:

Rollout of the National Broadband Network

WITNESSES

KERR, Mr Ian, Chief Executive Officer, Post Office Agents Association Ltd

Committee met at 09:30

CHAIR (Mr Oakeshott): I declare open this public hearing of the Joint Committee on the National Broadband Network. Is it the wish of the committee that the media be allowed to broadcast the proceedings today in accordance with the rules set down for committees, which include fair and accurate reporting of proceedings and not taking footage or still images of member' papers or laptop screens? It is so ordered.

The committee is continuing its hearing on the six-monthly review of the rollout of the National Broadband Network . Today, we welcome representatives from the Post Office Agents Association Ltd, Capgemini and Australia On Line.

Good morning, Mr Kerr. Thanks for giving us your time. Although the committee does not require you to give evidence under oath, I advise you that these hearings are formal proceedings of the parliament and warrant the same respect as proceedings of the respective houses. The giving of false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. The evidence given today will be recorded by Hansard and it will attract parliamentary privilege. Would you like to make an opening statement?

Mr Kerr: Yes, thank you. Good morning everybody. The Post Office Agents Association Ltd, or POAAL, is the national association that represents the owner-operators of licensed post offices. There are about 3,000 LPOs across Australia, making up about 80 per cent of Australia Post's post office network. POAAL also represents mail contractors, who deliver mail under contract for Australia Post. The postal network is Australia's original national communications network, dating right back to 1809 when the first postmaster was appointed. Today, the Australian postal network extends the length and breadth of Australia.

The post office has seen many changes to how we communicate, many of which could have been viewed as a threat—telephone, telegram, fax, SMS text messaging, email and the internet. The post office remains a visible presence in our communities and is constantly evolving, while some of the technologies I just mentioned are now obsolete. The proposed National Broadband Network promises to accelerate the impact of the network on many aspects of business and indeed our personal lives. It is our view that the NBN must be implemented and used in such a way as to bolster existing access to communications, especially in rural and remote areas.

At this point, I would like to briefly outline some of the community service obligations that are placed upon Australia Post. These CSOs serve the purpose of safeguarding access, pricing and service levels. Australia Post's CSOs include obligations to provide a letter service at a single uniform rate within Australia; maintain a network of post offices, including 2,500 in rural and remote areas; deliver to 98 per cent of delivery points five days per week; and maintain a network of at least 10,000 street posting boxes. While these CSOs address the matter of the number of post offices and to a point the distribution of post offices, there is no stipulation that all post offices offer the complete range of Australia Post products and services. All post offices offer based postal services such as postage assessment and lodgement of postal items, but not all offer online banking, ID verification services, parcel tracking, money transfers, real-time bill payments or access to certain local, state and federal government services.

A community expectation has built up over time that basic banking can be done at a local post office. This is not one of the CSOs that are outlined, but Australia Post has been an agent for the Commonwealth Bank for decades. With the big addition of banking services for other financial institutions, the local post office has become a primary access point for cash and banking services in many communities. We can see that for those communities in regional, rural and remote Australia, which have been abandoned by the banks and have seen the amalgamation of local councils and the gradual erosion of local services, the post office plays a central role in the day-to-day functioning of the community. Communications, banking and other services are all available in one central point. Where does the NBN come into this? There is an opportunity for the NBN to not only build new infrastructure but help maintain or improve existing infrastructure. Of the 3,000 LPOs I mentioned at the beginning, 464 do not have access to Australia Posts' electronic point-of-sale system. Australia Post has not installed its point-of-sale system at these LPOs because they process a small number of transactions each year. To give you an idea of the transaction levels, we are looking at fewer than 2,500 transactions per year. It is a catch-22 situation for a licensee who wants to build up their business. They need technology to offer a greater range of services, but they need to reach certain business levels in order to qualify for the technology, which is unreachable unless they have the technology already. There is no way for the licensee to bridge the gap and there is no compelling commercial case for Australia Post to install its point-of-sale system at these LPOs.

One of the major costs that makes it unviable to install Australia Post's point-of-sale system at these small LPOs is the cost of installing and maintaining the data connection. If the NBN can provide remote and rural LPOs with access to high-speed data connections at a low cost then this will reduce a significant barrier to installing Australia Post's point-of-sale system in small LPOs. As outlined in our submission, upgrading to Australia Post's point-of-sale system would provide three principal benefits to local communities served by these LPOs. Firstly, the LPO becomes more viable and has a lower risk of closure. Secondly, a greater range of postal services will be available to the community. And thirdly, there will be a greater access to financial services in the community.

All Australians deserve access to a first-class postal service, no matter where they live, and the NBN could play a part in improving access to postal services in small LPOs serving regional, rural and remote communities across Australia.

CHAIR: Thank you. Do you have a list of the 464 post offices without the point-of-sale system that you could give to the committee?

Mr Kerr: I will check with Australia Post to see if we can generate a list that can be provided to the committee, yes.

CHAIR: That would be of value to us to back up what you are saying about locations. Do you have a rough average cost for the installation of each of those? Is there a figure that floats around?

Mr Kerr: I do not have the exact cost at my fingertips, but there are a number of costs. One of the costs is the cost of installation, which includes putting in the data connection and the desktop technology. That is a minor cost these days because a desktop computer can cost less than $1,000, but there are other peripheral costs as well—the PIN card reader, the cheque reader and so on. So the initial setup can be a five-figure sum and there is ongoing maintenance—a helpdesk, upgrading technology, maintaining that data connection and paying for the download and upload of data. The significant costs are those of setup, but there are continuing costs which would have to be borne somehow.

CHAIR: Could you come back to us with some rough figures of the capital costs and the ongoing costs of providing this point-of-sale technology to one of the 464?

Mr Kerr: Certainly. I can give you a rough idea. In 2004 the then coalition government launched a program called Bank at Post. It was funded through the Department of Transport and Regional Services. That installed this technology at 260 licensed post offices and it also paid what they called a shortfall fee—it is an ongoing subsidy, basically. For those 260 post offices, and that subsidy went for a number of years, it was a grand sum of $9 million. So we are not talking about sheep stations.

CHAIR: How many of those 464 would not want it?

Mr Kerr: We have surveyed a lot of these manual LPOs and the overwhelming majority want it. To give you an example, very few post offices knocked back the Bank at Post program—it was one or two, or of that order. It was generally where the licensee was very old and was considering closing down the post office but there were a very small number of cases. Otherwise, they are grasping the opportunity because, as they have said to me, it is like getting colour television. You are going straight from radio to colour television, so you are going from writing everything up in a book and sending daily reports back to Australia Post to doing everything online and offering a greater range of services. We are seeing that the transaction numbers go up in all of those post offices that receive the point-of-sale technology because you are able to do so much more. It offers so many more services to the community.

CHAIR: Final question from me: on the broad issue of NBN, the question of communication and consultation, how has your consultation with NBN Co., the department of broadband and government been generally on the issue of the rollout?

Mr Kerr: We have not had a lot to do with it. We have not had many conversations with government about the rollout.

CHAIR: Are you actively chasing them? What is the dynamic—just waiting for it to roll out?

Mr Kerr: In one respect, yes, we are waiting for it to roll out to see where it goes, what impact it will have on our members. As I mentioned before, the internet is a two-way street in that it is accelerating what we call e-substitution, so letters being replaced by emails but, at the same time, it is boosting e-commerce, which means more parcels coming into the postal network. We are keeping a close eye on the impact it is having on our members' business more than anything.

CHAIR: Have you got any rough feedback to date over the first 20 years of the internet?

Mr Kerr: Parcel volumes are growing at the moment at something like 10 per cent year on year over the last six years. eBay and online selling started to have really big growth in Australia—and indeed overseas—starting from around 2003-04, and we are seeing that growth continue. It is a matter of public record that letter volumes have been gradually decreasing over time, so there was significant growth through the 1990s through things such as credit cards and frequent flyer programs and things like that; but there is a growing number of people who receive their accounts online and that is obviously having an effect on total mail volumes coming through the system.

CHAIR: So a local post office in a smaller regional or remote community is still a viable business option.

Mr Kerr: Yes, it is still a viable business option, especially with the full suite of products. If you are reliant just on postal services, you have got a less varied business and you are reliant on one sector of your business; whereas, if you are able to diversify across bill pay, banking and all these other products that are growing—let's take track and trace: nowadays, when people want to receive a product they have ordered online, they want to have it traceable so they can see where it is along its little journey. If you do not have access to the point-of-sale network, of course you cannot track it, you cannot trace it. It is a little bit of a black hole in Australia Post's delivery network, so we would like to see that hole patched so that you can offer a uniform postal service no matter where you are.

Mrs D'ATH: In relation to the 464—and you have talked about cost being a prohibitive factor—out of that number, how many just cannot get access to fast broadband to establish the service; and how many choose not to because of the current cost?

Mr Kerr: If I can answer the second part first: the cost to a licensee, if they said to Australia Post, 'Right, I want to pay for it myself,' would be significant because they would be looking at what they call a shortfall fee. For every transaction under 10,000 per year, they have to pay a fee back to Australia Post and that goes towards covering the cost of installation et cetera. So it is not so much a question of having access to broadband in the community; it is more a question of: is a licensee prepared to stump up a whole lot of money to subsidise the installation of the point-of-sale technology themselves and pun that they will be able to grow the business in order to get a return on that investment?

Mrs D'ATH: How do you see the NBN assisting a change in that?

Mr Kerr: If it lowers the cost of entry by virtue of lowering the shortfall fee or lowering Australia Post's costs it could change, first of all, Australia Post's attitude towards installing the electronic point-of-sale system at these post offices. If the government were to consider going on another program such as the bank and post program, it would mean that the total cost to the government is lower as well. If you are not paying so much for that initial data connection, it means that you can install the point-of-sale system at more LPOs at a lower cost.

Mrs D'ATH: So it is about making the cost more competitive?

Mr Kerr: Basically.

Senator STEPHENS: This is quite an interesting conundrum. It is a bit of a catch 22. In your submission you talk about the relationship between Australia Post and the Commonwealth Bank. Given that these 400-odd licensed post offices cannot perform those transactions that you list in your submission—business banking, CBA debit, deposits and withdrawals—has there been any interest from the Commonwealth Bank to partner in getting these particular organisations onboard as part of their growth strategy?

Mr Kerr: As far as I am aware they have not made any moves to subsidise or help install electronic point of sale at these post offices. But it is a good point that you make.

Mr SYMON: With the 464 LPOs that do not have access, are there any in suburban areas that you know of?

Mr Kerr: There may be a handful, but we are talking about a very small number. I would say, if there are any, there would be fewer than 20. The vast majority are in rural and remote Australia.

Mr SYMON: Are the ones in the suburban areas not on it by choice or is it because—

Mr Kerr: I doubt that it would be through choice.

Mr SYMON: Okay. So it is because there is nothing running past the premise that allows them to connect at a speed they need to operate?

Mr Kerr: More likely they have a very low level of Australia Post business and it is not a viable proposition to upgrade.

Mr SYMON: So it is actually their turnover that is holding them back?

Mr Kerr: It is the number of Australia Post eligible transactions—the number of bills that get paid, the number of banking transactions, the number of money orders et cetera—that get processed at that post office which determines the eligibility in Australia Post's eyes to receive the technology.

Mr SYMON: Does the electronic point-of-sale system that you use in the LPOs only do the functions you have described in your submission or does it also do general retail functions, that is, scanning of barcodes and various other things that we take for granted in most retail businesses?

Mr Kerr: It is a full point-of-sale system, so it does everything from scanning barcodes on cuddly bears to proving ID, banking transactions and track and trace through scanning barcodes on parcels. It is a wide-ranging platform.

Mr SYMON: So an LPO that does not have EPOS is fully manual? They do not even scan a barcode?

Mr Kerr: It is old school, fully manual. There is no scanning of barcodes, swiping of credit cards, swiping of debit cards or inventory management. It is all done with a pen and piece of paper.

Mr SYMON: I am glad I asked that question!

Mr Kerr: And a date stamp of course.

Mr SYMON: Going along the same path of questioning on business opportunities outside of the core functions of the post office, I know you have mentioned some of the things that post offices do on a fee-for-service basis for other organisations, but I suppose there are also a lot of retail opportunities there too that may not be realised if you have not got access to the electronic system.

Mr Kerr: It is true that you drag in a bit more foot traffic. If you are able to drag in more foot traffic from people paying bills, doing ID transactions and other new services that are coming online through Australia Post, you have the opportunity to up-sell. If you have your post office in conjunction with a small retail business—you might be selling cuddly toys or whatever it might be—you have a greater opportunity to boost your overall business. That in turn, logically, means that, if your overall business is more viable, it is more likely to stay in the community, offering all those services. It is one of the real threats to the post office in rural areas: if it is a small post office and has a limited range of services, it is not able to grow, it is not able to offer a full range of Australia Post services to its local community, so its viability can be questioned.

So this is also a matter of increasing that viability of the post office—and also the saleability of the post office, taking it a bit further. If you have a couple who have been operating a post office in a small country town for 30 years, which is not atypical, they will eventually want to retire and live a quiet life, but they have to be able to sell that post office. If they cannot sell the post office, what happens? The post office may close, which leaves everybody worse off, not just the local community but also the surrounding areas.

Mr SYMON: My final line of questioning is in regard to your electronic point-of-sale system. What bandwidth do you need to operate it, and does it improve as a system with a higher bandwidth available?

Mr Kerr: That is a very good question, because Australia Post is in the process of upgrading its point-of-sale network and it is upgrading it to a system that is a bit more hungry for bandwidth. One of the complaints of our members at the moment is that the new system is too slow. If we have got a bigger pipe connecting the post offices to the central server or to each other, it will mean a better quality of service for customers coming in the door. If the system is too slow, one of the factors in that has to be bandwidth.

Mr SYMON: Does that also relate to upload speeds, especially, because I imagine you are generating a lot of work at the post office and then sending it off to somewhere else?

Mr Kerr: But, equally, you are sucking data down the line for various parts of the business, and it is going to become more and more intensive as we go more into proof-of-ID transactions. When you start to take a customer's photo at the counter, you might be then transmitting it down to wherever the central server is and who knows what data has to be coming back, so there will be an increased need for high-speed data communications at all post offices—hopefully, including these 464 post offices.

Mr SYMON: Yes. Thank you.

CHAIR: Can I just confirm something you said before. The deputy chair and I were just debating whether the 10,000 figure you gave was the amount of transactions or the amount in dollars?

Mr Kerr: It was 10,000 transactions.

CHAIR: You were right; I was wrong!

Mr Kerr: That is on the *Hansard* record, you realise!

Mrs D'ATH: Thank you!

CHAIR: Senator Stephens, you had a question.

Senator STEPHENS: Mr Kerr, with the Australia Post proprietary software and system, if you are a small business with an LPO outlet, is there a capacity for you to use a different e-commerce system and have your Australia Post transactions as a cost centre within that?

Mr Kerr: That is a simple question with a complex answer. Many of the transactions Australia Post offers through its point-of-sale system can really only be offered through that point-of-sale system. You could conceivably have your own point-of-sale system for the other part of your business and if you, say, sell postage stamps or any other pure stock sale items then you could do it through there. However, you would be missing out on the more complex transactions, as I mentioned before. For example, you would not be able to do business banking through an alternative point-of-sale system, or proof of ID, which is another growing area for Australia Post. You would not be able to do that through the other non-Australia Post point of sale. I am sure that there are people out there at the moment who are running their Australia Post sales for stock items, stamps, express post, post-pack and things like that through the other part of their business. But it is not the ideal situation, clearly. The ideal situation would be to have that full suite of Australia Post applications and products available.

Senator STEPHENS: Is one of the issues the fact that it is Australia Post that has the relationship with the Commonwealth Bank and the financial services licence?

Mr Kerr: That is right. A licensee—the owner-operator of a licensed post office—is an agent of the Commonwealth Bank by virtue of the relationship with Australia Post.

Mr FLETCHER: You talked about the bandwidth needs when you were asked that question by Mike. But do you have a number on the bandwidth or speed requirement to support the Australia Post system that you want to have.

Mr Kerr: The short answer is no. The long answer is that I can always ask Australia Post to get more information on that.

Mr FLETCHER: It seems to me that that might be a useful thing for either you or the committee to do. If I understand your argument correctly, what you are putting to us is that you believe that the introduction of the NBN will make it feasible to deliver a connection at the required speed to a lot of locations that licensed post offices are in today where it is not feasible to deliver that speed today. Is that a fair summary of what you are putting to us?

Mr Kerr: That is an excellent summary. I will get you to write my next submission.

Mr FLETCHER: I am interested to know what the speed is, because it seems to me that there are two alternative—well, there may be more than two, but I can think of two—possible explanations for what is happening. One is that the required speed is physically not available in a lot of the locations. But the other is that it is not a problem with speed but a commercial decision that has been made within Australia Post about not wanting to incur the expenditure on either the connectivity or the system in the LPO or both.

Mr Kerr: At the moment, that second point definitely applies. As I was saying before, the increasing demand for bandwidth from Australia Post will mean that we will need to have better quality connections. But, as I said before, I will get back to the committee or get Australia Post to respond on the bandwidth requirements.

Mr FLETCHER: On the locations of the LPOs that today do not have the system, what would be the minimum population size of a centre that they would be located in?

Mr Kerr: There are a couple that have very small populations, such as 27. That is the local community served by one post office in New South Wales. They can serve very small local communities. But at the same time they serve a wider area. It is quite typical for a post office in rural Australia to serve people in a 50 kilometre or 100 kilometre radius.

CHAIR: Arguably, the size of the community had an inverse correlation to the importance of the post office to that community. In that community of 27, the post office becomes more important.

Mr Kerr: It is the only shop in town. It probably has a wide range of services. The post office makes up a portion of that business. If the post office were to fall over or disappear, the rest of the business will become less viable and that will obviously have an impact on the community. When the last shop closes, what is the reason to stay in a town?

CHAIR: That is right. Sorry to interrupt, Paul.

Mr FLETCHER: That is all right. I am going in a slightly different direction, actually, with the questioning, though. I was trying to get a picture of the typical locations of LPOs. I can see one in my mind's eye in a village

near Griffith where my wife is from. My assumption is that they are typically in towns, such as they are, and are therefore typically more likely to be close to that existing exchange as opposed to being a long way away.

Mr Kerr: That would be true. If you go back many years, the post office and the telegraph were part of the same organisation. Many post offices had an exchange located within their building. It was the job of the non-official postmaster, as they were then known, to man the exchange 24 hours a day. So there would be a great many post offices, especially in rural areas, as you mention, that should be very close to the local exchange.

Mr FLETCHER: I suppose what I am wondering, therefore, is how many of those exchanges would not be equipped with DSL today. It again comes back to the bandwidth question. In other words, if the bandwidth requirement for this system is 30, 40 or 50 megabits per second, then DSL will not help. But if it is two megabits per second—I personally suspect it is more likely to be in that range, although I do not know—then it may be that the problem is simply that, although the DSL connectivity is typically available, the commercial decision has not been taken to purchase it.

Mr Kerr: I cannot honestly comment on that.

Mr FLETCHER: None of us know the answer to that. But I think we have agreed that on that line of questioning it would be helpful to ask Australia Post in order to get to the bottom of it. Those are all questions I have.

CHAIR: Thank you, Paul. Mr Kerr, you have been pretty comprehensive and the message is loud and clear with regard to the gap in existing services in many communities with regard to NBN readiness, via the post office.

Mr Kerr: Of course, if Australia Post becomes an onseller of NBN access, then we will need to have all these post offices online, won't we?

CHAIR: That is a nice, final point to finish on as well. Thank you for attending today. There are a couple of questions on notice where you are going to provide further feedback. If you could get that in by 8 August. That is a bit of a deadline that we have set ourselves for reporting requirements. It would be greatly appreciated. It is a bit of a cut-off and, if you want to be part of this first report, we would need the information by then. Thank you for coming. We really appreciate the information.

Mr Kerr: Thank you for the opportunity.

OLDHAM, Mrs Shelley, Vice President, Head of Public Sector, Capgemini Australia Ltd

[10:02]

CHAIR: Welcome. Thank you for coming. Although the committee does not require you to give evidence under oath, I advise you that these hearings are formal proceedings of the parliament and warrant the same respect as proceedings of the respective houses. The giving of false or misleading evidence is a serious matter and may be regarded as contempt of parliament. The evidence given today will be recorded by Hansard and attracts parliamentary privilege.

For the record, you have provided us with a submission, which we appreciate. Would you like to make an opening statement?

Mrs Oldham: Thank you very much for the opportunity to appear. I am here to represent part of my industry, which is the ICT industry. We have watched with great enthusiasm the expansion and objectives of the NBN. But we have also watched with a little bit of interest how some of the connecting pieces are still missing. Today I would like to talk about those connecting pieces. I understand that one of the terms of reference of this committee is 'any other issues that impact the NBN'. I think this fits into the 'any other issues' category.

I do not propose to read from this paper. There is quite a bit of background there that I think you all know pretty well. I would like to focus the committee's attention on the differentiation of services in the telecommunications arena that is going to happen as a result of the NBN. That differentiation means that we will have many new retail service providers, which will also generate a range of new content providers. One area that we are particularly focused on is whether the ICT industry has the capacity to meet that content provision. The basis of what I am going to talk to you about today is around that subject. As we move to the NBN rolling out, we will see a greater need for a strong application service provider industry. At the moment we have an ICT industry in Australia that could be affectionately titled an 'outside in' industry, not an 'inside out' industry. Many of our large software applications, content provision applications, things that can service provision at the end of the NBN, are actually innovated or generated overseas and brought to Australia.

We have some further data that is not included in here, but I am happy to give it to the committee, about ICT skills growth. We currently see between 12 to 50 per cent of our ICT skill base offshore, being delivered elsewhere, out of India, Manila and China. If we are to develop a strong application service provider industry, we believe that there is a role that the government can play in that. Information technology at the end of the NBN will be the thing that effectively makes it work. I liken it to the government deciding to build a very large range of hospitals and not deciding to provide any doctors or nurses to help them be effective in their operation. The issue that I talked about before around offshoring and the 'outside in' industry has seen what we refer to as an ICT value leakage out of Australia. Submissions into ICT courses in universities are declining continuously and have been over the last decade. The development of ICT skills in regional locations is not consistently stimulated; it is really dependent on the university.

We think that the NBN is a very visionary project, but we think there is a lot that the government could do to stimulate ICT innovation, production and deployment of ICT applications. I referred before to an 'outside in' industry and it is really a bit of an affectionate term. In Australia we have seen some very successful ICT initiatives—for instance, the development of Wi-Fi, the development of a tool called Oracle Policy Automation, a local Australian ICT company, the first one that the Oracle software company purchased from Australia. It is now rolled out all over the world. We would like to think that the NBN could help stimulate further applications like that and could help stimulate growth of ICT skills in regional economies.

With regard to the work that my company does around the world, we are the third largest provider of ICT government services in the world. We do a lot of work with regional economies in the United Kingdom and the United States delivering government policy initiatives that drive ICT skills development in areas where employment is not high but where things like the NBN and its ability to connect regional communities can actually grow new industries and stimulate employment in those industries.

There are many service delivery areas that I could talk to, but the two that I would really like to focus on are health and education, because we think there is a significant benefit for health and education applications to be sitting off the back-end of the NBN.

For those of you who are not familiar with them, I will just quickly take the committee through some of the statistics on page 6. The Australian Bureau of Statistics is saying that health expenditure, per person, was up by 45 per cent, at the end of 2007, and health economists who have been working with the National E-Health

Transition Authority and the personally controlled electronic health record are predicting that those health costs will grow at a rapid pace. Some of the predictions are saying: 'Unable to meet the ability for government to fund them'. Whilst reducing costs is not a single solution response, we think lower costs can be achieved in many ways: appropriate patient monitoring in the home, to reduce service delivery costs and overcrowding of emergency situations in hospitals; a personally controlled electronic health record, which is another very positive initiative that is already underway; implementation of joint ventures for driving back-office efficiencies. One of the trends we are seeing around the world in health care is that, instead of government and healthcare providers taking on the management of back-office efficiencies, there are joint ventures. Also, changes to performance models of funding for hospitals.

The one that I am going to touch on is patient monitoring. With respect to home monitoring for things such as diabetes, heart disease, asthma and kidney disease there is quite a significant list of initiatives that can be managed in the home and, through the use of high-speed symmetrical broadband connections, you can assist people to monitor their own health, in conjunction with their practitioner. To be able to do that, though, requires the development of some applications to support it. It is not just a matter of connecting the NBN connection to the home. Tools need to be built for patient and practitioner connection; secure transportation of results and supporting imagery; referral provision; and connecting to local practitioners, pharmaceutical providers and so on. Our view is that the system that is being built under NBN—the ecosystem, if you like, to support it—really needs to look at ways to stimulate the ICT sector to start providing those applications from an inside-out view in Australia, not from an outside-in view, which would be applications that come from either the US or the UK.

If you look at the ICT courses that are being delivered at the moment, there are only a few universities that are delivering specific ICT e-health application development programs. I think they have between them about 120 students in the programs, so with a bit of a dropout rate you might see about 80 or 90 students coming out of those. Our concern is that that is not going to be enough to meet the need that is going to be in the market.

I talked a little bit about the PCEHR, but we do think that that is just one piece of the puzzle. We think there is a need to build those applications and sit them at the end of the NBN, potentially dedicating through government policy one port in the home for provision of health care, especially in areas where we know the demographic requires additional support.

The other area that I wanted to talk about was education. Technology has changed the pedagogical learning model quite significantly. The University of Melbourne did quite a bit of work in understanding for the Victorian Ultranet what the impact of that might be. There were some fears around whether technology would move students, learners and teachers away from a standards based curriculum, but experiences from overseas show that, although the traditional learning model has always been around a standards based curriculum that paces children from, say, one to five through their classes according to timetable and teachers' tempo—that has been the model that we all grew up with; I think everybody in this room did when learning—learning progression, motivation and individual cognitive styles can be better satisfied through guided social constructivism, with very positive student performance results. We are seeing this in other parts of the world. By that I mean that students can have an interactive technology application that allows them to effectively learn and progress at their own pace, being motivated by the work that is in front of them, not by keeping parallel pace with their peers. Simple applications that can be built in ubiquitous technologies can really help Australia's children to develop more interactive learning, teaching them problem solving, critical thinking and self-direction that keeps time with their capacity and interest.

At the moment we are seeing a number of similar application initiatives coming into the Australian market from the United Kingdom. Our concern is that we should really be developing the skills and those applications in Australia from the inside, with people who understand the context of our learning system and can deliver applications to support that. We think that the need for specific very rich applications—online collaboration tools, standards based curriculum delivery tools and teacher training skills—will really be one of the things that the NBN delivers not only to remote and distant communities but to students and schools all over Australia. We did see the Victorian education department, through its Ultranet project, take on an initiative similar to this. Its experience was that the stimulus in the ICT industry was not strong enough to bring the skills to bear; they had to bring a lot of people, experience and technologies from overseas to be able to deliver that project. We think that is not how Australia should be developing its ICT industry.

We have looked at the NBN 'enable education and skills service' program, and we think again that that is another fantastic initiative. The program funding, however, is expected to be picked up by TAFE organisations, higher education institutions, schools and industry representative bodies. We think, though, that the government does have an opportunity to increase the capacity of the ICT industry to drive that funding to deliver the outcomes

with locally designed and developed applications, helping again to stimulate the ICT industry. I will mention a couple of things about what is going on in the ICT skills arena and whether, should we be fortunate enough to be growing these sorts of applications in Australia, we have the ability at the moment to support that. We saw the demand for ICT skills increase 3.9 per cent in the March quarter. University placements, as I said, have been declining. Some universities are prepared to publish the data about how much and others are not. An indicator is that we saw Monash University in Victoria, which used to have the largest intake number of ICT skills approximately three years ago, halve its department, which I think is a telling sign. In the Clarius Skills Index these skills are now ranked seventh in order of the professions with the highest skills shortage out of 100 different skill sets.

There are some other unique factors that are impacting on the ICT skills market. The disaster recovery effort in Queensland is having a significant impact on our industry. Many people had data centre applications stores sitting in basements. The rebuild of those is quite significant. The drain on IT professionals for the commodities boom is another thing. We are finding that people can leave work in the cities of Melbourne or Sydney and go to the top of Queensland or the Northern Territory and get double their salary for doing the same job, just through the mining boom. Project activity in Queensland has had a fairly dramatic rise, along with the financial services industry in Victoria. We also see that the banks have some significant projects, with $4 billion worth of ICT work to be done in the next three years. It is likely that the ICT skills sector will be impacted by retailers as they try to evolve to respond to what they see to be a significant kind of pressure from online trading.

The skills shortage is meaning that we are actually hiring much less qualified staff into the ICT industry. There is not a mechanism to stimulate training other than being industry funded. As we train, we find that those people are moving offshore or to other locations because there is not enough interesting applications work to keep them here. Salary pressures are starting to hit our industry very high. We are finding in this first half of the year that salary pressures are going up by about 30 per cent, and that is indicative across the industry. I have talked a little bit about how I think the government can help stimulate to make sure that there are applications and services at the end of the NBN as it rolls out that really deliver on other government policy initiatives but also deliver to the economy.

During the early to mid-1990s the ICT industry was facing similar pressures, but they were for different reasons. They were largely to do with a declining economy. During this period, the Victorian government introduced a skills based education for work program that I was involved in at the time. It was quite innovative and it trained 400 people in 12 months to develop specific applications for the telecommunications industry. It took people who had one IT degree and either did not have English as a first language or who were finding it difficult to get employment at a higher level in the industry. The program was funded by the government and people were trained by industry in a specific application and were then sent off into the industry to innovate and develop. It was a very successful program.

We think that the NBN does have a potential weakness in that what is going to happen at the end of the NBN is really being left to market forces. We think that is extremely useful in some areas, but when it comes to delivering on some government policies, such as health and education—or, for that matter, maybe even smart energy—we think there is a role for government to play in stimulating some of that. As I said, we think the government could define policy positions that mandate the use of one or more of the ports in homes for people to use for healthcare services. We think the government could stimulate grants for, say, telehealth applications for use across Australia. Criteria for establishment of grants could be to stimulate regional employment. There are two centres that we work with that have the capacity to have data centres and what have you in place to help support those, and those are Ipswich in Queensland, which is an upcoming NBN rollout area, and Ballarat in Victoria. There may well be more of those but they are two that we are aware of. In closing, I would just like to comment that we think that there is a role that government could play. It could associate developers of software that are funded through grant initiatives into export programs as well to significantly grow some of this part of the sector out of Australia. The NBN is a strong and visionary proposition and we think it is poised to have significant impact on the work life and community life of all Australians. We think it is a catalyst that will drive many initiatives. Health and education are key initiatives that should be enabled by the government. We are concerned, though, that the shortage of ICT skills in Australia could impact the full benefit that is available through the NBN and we think it could also drive further introduction of IT expertise from overseas that eventually removes our capacity to deliver on these critical skills. I am happy to take any questions.

CHAIR: Thank you very much. It is a valuable submission. We have also all seen your comments that were reported in the *Australian* on 10 May, which back up a lot of what you have said in the submission. Where do you start? As far as applications, if the comment is government is being agnostic about involvement in the application

alongside the wholesale build of NBN, are you aware of the success or failure of that to date? Are any of the test sites seeing skills development—the value-add happening; which is a bit of a counter to what you are saying—that gives you some level of comfort that the path that you would argue government shouldn't choose is actually delivering on the ground in some form?

Mrs Oldham: Are you asking if the government or the industry are already doing this?

CHAIR: It is less about directly funding applications alongside the NBN. If your argument is they are not doing that and they should, by not doing that are you seeing anything in your travels that would suggest there is organic growth alongside the NBN?

Mrs Oldham: I might answer that in two parts. I may take it on notice and come back with more, because we have been doing some significant research. What we have found to date is many press announcements by local councils and business forums, but we as yet cannot find evidence of that activity developing into anything.

CHAIR: Anything practical?

Mrs Oldham: No.

CHAIR: I am really just integrity-testing the comment and trying to see how big a problem and how urgent a problem it is.

Mrs Oldham: It may not be an urgent problem; it may be something that the government decides is not urgent at all. But, given that there is an opportunity to stimulate our industry and grow our economy through basic knowledge work, I think it is an opportunity that is one the government should think about not losing.

CHAIR: Okay.

Mrs Oldham: But I will come back. Our researchers are still working. As I said, they have gone through significant amounts of material and we have been to visit lots of communities and what have you. As I have said, we see lots of press releases, lots of good-intent statements, but we have not yet seen anything concrete.

CHAIR: With your skills hat on, are you getting any action through the relevant skills bodies in regards to your message of a critical skills shortage?

Mrs Oldham: I might ask you what you mean by 'action'. We are having lots of dialogue—are we dancing? Again, people are waiting, I think, for someone to stimulate a position for them. People are saying, 'Yes, we understand there is a skills shortage.' Universities are saying, 'We understand there is a skills shortage.' We have spoken to a number of the big banks and they are saying, 'We understand there is a skills shortage, but 25 per cent can just go offshore.' I am not sure that that is the right approach. Eventually there will be a collision, because we cannot actually house e-health applications or education applications offshore because of data sovereignty. If we continue to go down the path of eroding our skills for economic benefit—for large banks and what have you—eventually government is going to find itself without the ability, I believe, to build those sorts of things adequately without importing skills from overseas.

CHAIR: And are you having the same dialogue with government, with DEEWR in particular?

Mrs Oldham: We have had it with many agencies in government but not DEEWR.

CHAIR: Why not?

Mrs Oldham: Just timing so far.

CHAIR: Have they made any noises in regards to their awareness or otherwise of a skills shortage?

Mrs Oldham: The last meeting I had with DEEWR around this issue was over a year ago and they were not confident that there was a skills shortage. I think that, if I were to go back and talk to them now, they may see that differently.

Mrs D'ATH: I know probably a decade ago everyone was promoting the fact that ICT jobs were the jobs of the future and the market got flooded with qualified people in ICT and they could not necessarily find the jobs. It peaked and then we saw a levelling out of people going through the courses and then getting the jobs. Obviously this is not the only industry where we have seen those peaks and those troughs. We have been through that with the traditional trades as well. You have said that the universities, the industries and many businesses, like the banking sector, have acknowledged there is a skills shortage. What is being done by the ICT industry? We saw with the traditional trades that it got to the point where businesses just said: 'It is not my responsibility. Someone give me a tradesperson.' What is the industry doing to try to generate interest in the sector again?

Mrs Oldham: I do not think there is a lack of interest in the sector per se. I think there are a number of issues. In our part of the industry we do a lot of training programs and all of us go out to graduate placement—we go early into universities. I am aware that the AIIA, which is the industry body—and I do not pretend to speak on

their behalf—are driving conversations with government around what we need to do in terms of skills development. As a participant in the industry it is very difficult to get our board to commit to training a particular skill set, for instance, until they know there is a stimulus in the market to need it. So there is a large range of business as usual sorts of activity going on in the market where we have the skills and we can meet those but where new initiatives need to be built—things such as telehealth—there are not the skills there.

We have had requests from people in government who are wanting to explore those sorts of applications and so have some of our peers. We have one person who has telehealth experience in our workforce of 1,000 in Australia and we have 500 from overseas who we could bring into Australia. The point I am trying to make is that, if the stimulus is there to build those applications using Australian resources, organisations like ours would commit to training them, even independent of a university training them.

Mrs D'ATH: Define 'stimulus'. Is 'stimulus' funding from the government? You are already getting approaches from the health sector and so forth saying they are interested in people who can develop platforms and applications in these areas. You are saying that there is no-one skilled in this area really in Australia. Is that not stimulus? We know the demand is there. I am trying to understand. You were talking more broadly about the development of applications and the stimulus not being there even though as an industry you know what the potential is of broadband and you can foresee all these opportunities. You know there is growth and profit to come from those future opportunities, but that is not stimulus?

Mrs Oldham: It is not the right kind of stimulus. It is a market that we can easily run and compete in. Where there is no commitment from government to say, 'We would prefer to do this using Australian innovation,' we find we have global application players come in. We are seeing that quite a lot. There are a couple of US based health companies. They come in and say: 'We'll just shift 500 people in from the US. We can do this.' That cuts out the potential for the growth of Australian innovation and services. Government then starts to get compromised because most of us have offshore centres that we work with. So the US provider says: 'Twenty per cent of our work will go offshore. You don't really mind, do you?' We then get challenged around all the data sovereignty issues. So there is that stimulus there and we are happy to compete in that market, but the issue for me is around the lost opportunity for Australia to be creating those applications, creating those skills, itself. If you look at some of the regional locations, call centres could be placed in them, for instance, and other applications could be sitting behind them. If you look at the nurse online service, the NBN will enable that to become richer and smarter. Instead of a phone call, it could be a full consultation. Now we could go to the US or the UK and buy a software application to do that. It is pretty easy.

Mrs D'ATH: When you talk about stimulus, you know the demand or the interest is there but the industry needs to be satisfied that the demand is for the Australian product. Having invested in the research and development of the applications, you want to be confident they are going to be picked up.

Mrs Oldham: I do not think it has to be fully satisfied by government, but I think it is a lost opportunity if the government does not use this to build those skills and capabilities. If I look at health, for instance, e-health is going to roll out through the Asia Pacific region over the next five years in fairly significant ways. Do we want to compete with Singapore, who do not have a technology sector that builds applications? Do we want to service Singapore? Do we want to service Hong Kong? Or do we just want to let America and the UK come in and do it all?

Mrs D'ATH: Basically, if the government is putting money forward in grants for research and development in this area then you are confident that they are looking for the platform that they are likely to pick up and support.

Mrs Oldham: Yes. They are going to support Australian training and building capability of Australian staff as opposed to us not getting any government interest and, as I said, working out which software application we will bring in from somewhere else in the world.

Mrs D'ATH: Just going back to the training issue and the skills shortage, you said that the industry is getting the graduate students by going to the universities early. But you also talked about a decline in university places. I was not sure whether it was a decline in the number of places being offered or a decline in the demand for those places by the universities. So, if it is not so much about whether you are getting in early and getting these graduates from the universities and the other training programs, where is the problem with the decline? Is it the demand, or is it that the universities are not offering the places?

Mrs Oldham: I am happy to take that on notice. We did not actually go that far in our research. We just looked at the declining number of graduates coming out at the other end

Mrs D'ATH: Okay. It would be interesting to know whether there is a decline in the demand for places as in, again, ICT jobs are not being seen as—

Mrs Oldham: attractive.

Mrs D'ATH: attractive or the jobs of the future in the way that they were a decade ago, because it can focus a lot more on where the promotion needs to be. Or is it that the demand is still there but the universities are not offering the places for a range of reasons?

Mrs Oldham: I am happy to take that on notice and see if we can get that answered.

Mrs D'ATH: Thank you are very much.

CHAIR: Paul, do you have any questions?

Mr FLETCHER: I have a couple of questions. Thank you for your presentation. I want to make sure that I am picking up the gist of it. I think what I heard you say—and correct me if I have got this wrong—was that investment in the NBN of itself is not automatically going to stimulate IT industry activity and that there would need to be a broader set of policies pursued to achieve that objective. Is that a fair summary?

Mrs Oldham: That is a very good summary. I was listening to the person before me. You must be the person who synthesises it all. I think what you will see in the media space will certainly generate content because there is a commercial market for selling television integrated video and talk and what-have-you. In other areas I think you are correct. I do not think putting the NBN at the end of every street will stimulate the requisite amount of activity to drive the application development to deliver services.

Mr FLETCHER: It really goes to the question I suppose of the range of areas where it is thought that the NBN might stimulate activity. You have talked about entertainment and obviously the commercial case for broadband upgrades in a lot of other countries has been delivery of video services, video on demand or even pay television by operators who today do not have that capacity. I think that is one issue, but another issue, which is the one you have been more focused on in what you have been saying to us, is: what are the industry development benefits, particularly the IT industry development benefits? Can you think of examples in other countries of significant investments that have been successful in stimulating industry as opposed to stimulating consumer activity?

Mrs Oldham: I can talk to some that I know we have been involved in. In Scotland we developed an initiative where an online application was put in a regional location to deliver all of government's procurement across the United Kingdom. It delivered jobs in an area where mines had been closed down, delivered £800 million worth of savings over a period of four years and is now an application that is joint owned by us and the Scottish government and is sold throughout Scotland and other parts of the world. That is one that I can bring to mind. I am happy to go away and get our researchers to find more. I know there are quite a few around.

Mr FLETCHER: That is very interesting example. Is that across the full range of goods and services that government is procuring?

Mrs Oldham: Yes, it is. It started with hospitals, went to schools and then went across each government department and agency.

Mr FLETCHER: Does it build in things like online auctions or other methods of putting price pressure on vendors?

Mrs Oldham: It has about five or six different ways of going to procurement. I am happy to provide the committee with a case study on it. The Scottish government has its own website, which I think is www.EPS.com. I am pretty sure that is what it is, but I can send that along.

Mr FLETCHER: I think that would be very useful. I will just ask a follow-up question. You talked a bit about e-health. From an end-to-end point of view, looking at the challenges and opportunities in e-health, where does a high-speed broadband network fit into the picture and how does it compare to things like agreeing and imposing data transfer standards and protocols, agreeing contractual terms between all the parties and central data storage? What are the various components that you need to be thinking about to come up with an e-health solution and where does an access network fit into the picture?

Mrs Oldham: That is a very big question. I do not think I can do it justice by trying to answer it today. I will make an attempt and, again, I am happy to provide you with some more information. I think the concept of an end-to-end health solution, or end-to-end health policy delivery, is potentially just too much to bite off at once, if we look at the PCEHR and the network hub and broker system that has been put in place to manage that at a national level. In the Netherlands we worked with the same initiative and we found there was a need for a health information exchange that sat at state level in the Netherlands to feed back up to the federal level. That allowed people to get closer to an end-to-end solution, because again it was a commercial joint venture with government, where we are the joint venture provider. We are responsible for getting clinicians onto the system, we are

responsible for getting pharmacists onto the system, we are responsible for getting people onto the system and we are responsible for setting transaction prices that make the system work, as opposed to it not working. As part of responsibilities in doing that, government manage all the data integrity standards, ownership, sovereignty, privacy and all those sorts of issues, and we pretty much provide the infrastructure. At a state based level, that then allows health care to be closer to a community and for the record to be fed back up to and integrated at a federal level. With health care being closer to the community with that record system in the Netherlands, there is an ability to use their existing network communications to start bringing communities of carers together to understand what they need to do with particular patient demographics and then connect them through smart applications for faster home health care and for community control of how the healthcare budget is managed.

Mr FLETCHER: That is very helpful. Is it fair to say that ensuring that there is a decent-quality access network reaching all the points you want to reach in the health system—all the GPs, all the specialist rooms, all the aged-care homes et cetera—is one part but not a critical or limiting part of the end-to-end process of introducing e-health? Is that a fair statement?

Mrs Oldham: I think it is a very fair statement. I think that putting the connections there is important, but the connection to a general practitioner, pharmacist, clinician or hospital is almost irrelevant to them; more important is what sits at the end of that and how well it can service their requirements. One of the comments that I did not include in the submission but I think is worth making is that, if government does not get involved in trying to set some parameters around how this evolves, we could end up with a proliferation of non-standard applications, non-standard tools and an inability to integrate critical information which could impact the ultimate cost benefits of the solutions in the health environment.

Mr FLETCHER: Thank you. In both of the examples you have given, you have talked about a joint venture between your company and the relevant government. What benefits does that offer the government, and what risks are there in a model such as the one we have with NBN, which is entirely government owned and operated?

Mrs Oldham: I might just give you bit of background context. I came from inside government, running and implementing large ICT applications. As I see it, the benefits of joint ventures are the agility and ability to bring commercial methods, approaches, tools, software, skills and discipline to a government environment without government losing control.

We are a joint venture provider to Her Majesty's Revenue and Customs service in the United Kingdom. We run their entire ICT environment; it is a £1 billion a year contract. We act as an arm of government. We have a joint venture company called Aspire. We manage 300 other suppliers under that. Our books are FOIable in the same way that government's are. Everything we do is transparent in parliament. The risk, though, is removed for government in that they are bringing a commercial provider to run and drive their operations. The risk to government is very low because we wear all the risk. If there is no benefit out of the contract, we lose; if there are benefits, government take 50 per cent. I do not know who struck that deal for us, but it seems to work very well for government! We are on a sliding-scale contract basis where we must deliver increased benefits every year or we are out. So it allows government to have the requisite control but brings a commercial discipline to the arena, as opposed to outsourcing, which I think is just too hard for government.

Mr FLETCHER: Good. Thank you.

CHAIR: Thank you, everyone, and thank you, Shelley, for attending. There were a couple of questions put on notice, so, if you could get those answers back to us by 8 August, that would be greatly appreciated.

Mrs Oldham: I am on holidays on 8 August, so you will definitely have them before that. Thanks very much.

CHAIR: Okay. Thank you. We appreciate your evidence.

BETHUNE, Mr Michael, Chief Executive Officer, Australia On Line Pty Ltd

[10:45]

CHAIR: I now welcome the representative of Australia On Line. Although the committee does not require you to give evidence under oath, I advise you that these hearings are formal proceedings of the parliament and warrant the same respect as proceedings of the respective houses. The giving of false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. The evidence given today will be recorded by Hansard and attracts parliamentary privilege. Would you like to make an opening statement?

Mr Bethune: Yes, thank you. Australia On Line is a small internet service provider. We have been operating since 1994, so in that sense we basically predate almost everybody else in the industry apart from, say, OzEmail. We have metro and regional customers right across Australia, so in that sense we have a national broadband reach currently. Our position as far as the NBN is concerned is that we think it is very visionary; we think it is nation building and so forth. We do think that there are some wrinkles in the specific configurations of its current rollout. Inevitably with something of the size of the NBN different sectors and interests jockey for position. What we currently have deep concerns about is that some of that jockeying has potentially cornered the commercial benefits of the NBN for the largest players and at the same time constructed mountainous barriers to entry into the retail marketplace. We think that the effect of that will force large numbers of even large ISPs out of the sector and particularly out of particular areas, such as regional. We are currently considering drawing back from providing national broadband coverage to restricting it to the densest areas of the capital cities because the current structure of interoperating with the NBN makes it commercially prohibitive to service our regional customers.

To provide some meat to that general opening statement, there are specific aspects of the NBN rollout that we are looking at. We feel that some parts of the current configuration apply unnecessary upward pressure on retail pricing. We also think that it raises unnecessary barriers to retail competition and that it shields the market from meaningful competition to some degree—some aspects of its current rollout; not the NBN as a whole—for long-distance data transmission services backhaul. We think that these are all fairly significant issues.

Looking first at the upward pressure on retail pricing, if we took our existing national customer base and transferred that over to the NBN's infrastructure today, assuming that that was possible, our monthly recurrent costs would increase fifteenfold. That is true of us at our scale of operation. We are a small ISP but we think that we are an important part of the industry. It is often the smaller players that bring innovation and shake up the applecart as far as larger players go. It would increase our costs fifteenfold—not 15 per cent but fifteenfold. That is just unsustainable. These cost increases are not a consequence of government policy or operation; they are a consequence of government quite reasonably taking on and enacting the advice of the ACCC, specifically in relation to the number of points that we must connect to in order to provide national coverage. Currently, in order to provide national broadband coverage, we connect into seven points with Telstra and that provides us coverage from Longreach to Toorak. Under the NBN the ACCC recommended, and the government took it on board, that we would need to connect to 121 points. For each of those points there is a significant fixed cost, whether you have one customer or 1,000 customers, just to run a single point. By virtue of increasing it from seven to 121 it multiplies our base admission cost by 15. These cost increases do represent mountainous barriers to entry. It is not just a problem for ISPs of our smaller size; even some of the larger ISPs are currently conducting discussions about which larger players in the industry will be above the water line and which will drown.

An objection to reducing the number of points that we must connect to, and hence the barriers to entry to the retail marketplace, is that it will shutdown a currently private marketplace in long-distance data transmission. Originally the NBN proposed that we would connect to 14 points and it would truck the data out to wherever and that would just exclude people who had existing long-distance assets—it would strand those assets and shut them down. My particular belief, which I can justify in more detail later on, is that is a furphy. It is an argument and a mechanism for justifying the construction of barriers to entry to the retail marketplace.

We believe that it is entirely possible to have small numbers of points at which retail operators need to connect to while being entirely compatible with an active and vibrant backhaul long-distance transmission industry. Our explanation of that is that there are so many industries that involve contestable supply of services in many different configurations. In the current power industry there is contestable power generation, distribution and supply. A classic example is that it is entirely possible to have a small number of points at which a retail provider like ourselves connect to and yet the NBN could have integrated within it multiple long-distance transmission suppliers that are contestable and offer their services. We could select at any point that we connect to that we want to use AAPT or Nextgen to truck our data into the depths of the NBN and they would bill us directly. They

would justify to us directly why we should use them instead of Nextgen or whatever. The idea that the number of points that we connect to is in some way by an iron physical law directly related to whether or not there is a long-distance transmission industry is a red herring. The point I would make is that it is almost an argument that relies upon an idea that the NBN or modern networks are something like old telephone exchanges—that you need to have very obvious, transparent ways that they connect together. Our argument is that it is digital. This is a digital world. You can provide quite sophisticated infrastructure to allow competitive contestability within the NBN.

Currently, the situation of 121 points has escalated our costs such that our costs dwarf the additional revenue that the backhaul industry will get as a result of that, which would be maybe a third of our increase in costs. Our increase in costs will go to data centres and power just to sustain these additional points of interconnection. In my submission I talked about tails wagging the dog. This belief that the backhaul industry implies that you need multiple points of NBN connection we believe has the potential to invalidate most of the major policy goals of the NBN. One of the major policy goals for the NBN is to provide affordable broadband access to all Australians. It is kind of paradoxical that the bandwidth will be there, coming to their front door, but, for instance, in Ballarat or Bendigo, ISPs like ourselves will be vacating that market and not providing sufficient competition to keep those prices low. It is also ironic that this backhaul issue and this point of interconnect issue invalidates national policy goals such as uniform wholesale national pricing. I propose instead that the NBN be reconfigured, with only a handful of points of interconnect being required to provide national coverage—this is not a brand new world we are talking about; we only require seven points today—with private contestable backhaul used within the NBN itself to connect the POI to the wider NBN's network: 121 points, 200 or however many you like. As I hope I have made clear, this would provide the best of both worlds. It would mean that there would a small number of NBN points that we connect to, reduced cost and reduced barriers to entry whilst retaining an active and vibrant backhaul market.

Actually, one point is that the backhaul market is currently not vibrant or competitive. Potentially one is actually twisting the NBN out of shape, in fact, to sustain a market that is highly compromised. I will briefly touch on that and then conclude my statement, if I may. The problem with cementing private backhaul in such a key role in the NBN future, whether it is by large numbers of connection points that we have to connect to or by providing contestable backhaul within, if you like, the NBN itself is that the backhaul market currently is not very competitive. This is partly because of Australia's size and so forth and that there are very few comprehensive backhauls, but the issue is also that those providers that are available are often conflicted by their own retail operations such that they are reluctant to sell to us, to their retail competitors, at anything less than a very premium price, because the vast proportion of their business interests is their retail and not their backhaul provisions.

I would suggest that if one provided contestable backhaul within the NBN, this could actually boost competition. What it would mean is that you would remove the conflict with the providers' retail interest by separating backhaul data provision from retail operations. I suggest that this could be done simply by the NBN saying to a retail service provider connecting to the NBN as a retail service provider, almost as a matter of policy rather than legislation or regulation, 'You cannot provide backhaul to the NBN if you are a retailer, because clearly your willingness to provide backhaul at a competitive price will be compromised by your retail representation.' We would suggest that, for the existing operators that are concerned about stranding of their assets, that would avoid stranding of their assets because they would then have the choice to say, 'Are you serious about providing backhaul as a business? If you are then clearly you will be happy to separate that backhaul asset from your wider retail operation.'

In conclusion, I urge government to take steps to protect retail competition—it is a serious concern—and protect the private backhaul marketplace. I would ask the government to request NBN Co. to formulate plans for facilitating the use of private, contestable backhaul within the NBN itself. I would also like to ask this committee to lend support to this request.

CHAIR: Thank you for that. It was mainly focused around this issue of points of interconnect. You are saying that there are seven now. I think the choice that the ACCC was thrown was that it was between 14 and 121.

Mr Bethune: That is right.

CHAIR: Do you know if they had a broader brief than that? In a technological sense, what is the minimum and what is the maximum of these POIs?

Mr Bethune: The minimum is one and the maximum is thousands. You could literally say that a point of interconnect exists at the end of every street, at every fibre distribution point in the NBN. Do not misunderstand for a moment that I am attempting to cane anybody. The ACCC did a very good job. We sat down with the ACCC and so forth and the ACCC looked at it. Basically they were asked an opinion and they went to the industry and

asked the industry's opinion. The members of the industry out there that are large enough to afford full-time regulatory liaison officers and so forth did a very good job of representing that you needed a large number of POIs in order to do backhaul. But the ACCC did not do an analysis of the competitive implications of this, nor were they asked to, and the ACCC did not do any kind of modelling as far as the competitive implications of this, nor were they asked to. They were simply asked to provide an opinion as to the number of POIs and also their locations. The ACCC understood the issue to be a sliding scale, which they have got in their discussion paper, between 14 and 121, with different points in between as to how deep into the NBN you actually have to connect in order to interoperate with them.

My suggestion, and I believe that it is moderately unique to date, is to say that that characterisation is misconceived—that is to say, it is not just a question of 14 versus 121. The suggestion is that in order to have backhaul you need 121 because that will more widely disperse them and therefore there will be a need for retail operators such as us to buy data transmission to connect to those more remote points—one in Ballarat, one in Geelong and so forth—whereas if there are fewer they would just be in capital cities and we would not need backhaul in order to connect. What I am saying is misconceived is that they are the only options and that it is either that you have large POI and backhaul or small POI and no backhaul. But I am saying that, no, actually the digital world is a bit more complicated than that.

CHAIR: What you are suggesting is pretty clear at my end.

Mrs D'ATH: My only question goes to the current and future costs of connection to the points of interconnect. You have given us your costs currently and you believe that your costs would grow fifteenfold. On what basis have you calculated that?

Mr Bethune: We are a very lean organisation. I will indicate to you how lean we are: when I leave here I will go and fill out the business activity statement for my organisation to submit today, because it is the due day. We have looked at the minimum equipment we need at each location, and in order to use that equipment we need to put that somewhere. That will be in a data centre and that data centre at each of those points of interconnect might simply be a Telstra exchange that the NBN have chosen to site their equipment in. We will need to put that in a computer rack. We will need about 12 inches of computer rack, as an example. Believe it or not, that is some of the most expensive real estate that you can possibly own and, given that you have to buy it in that location, you can be assured that it is not cheap or discounted. About 12 inches of computer rack will be in the order of up to $1,000, potentially, for the right to bolt your equipment into that 12 inches, plus power—plus you need to pay some fees to the NBN and so forth.

Mrs D'ATH: Can I just clarify, though. Are you talking about your capital costs? I know you have given us two lots of figures. I am sorry to interrupt, but I just want to clarify the figures you are talking about. You have given us capital costs but also your minimum network costs.

Mr Bethune: Correct, and that is recurrent. The network costs today I believe are about $40,000-plus and we are talking about $700,000-plus. That is monthly, so we would be signing a cheque every month for $700,000-plus and that would be a cost that we would be paying irrespective of whether we had one customer on those points of interconnect or not.

Mrs D'ATH: But the costs you were just talking about as far as setup costs and space to store equipment and all of that, are they capital costs?

Mr Bethune: No.

Mrs D'ATH: So that is part of those monthly costs.

Mr Bethune: Absolutely correct.

Mrs D'ATH: Are you basing it solely on current figures and your assumption that it will be the same cost multiplied by 121 points of interconnect as opposed to seven, or are there actual figures out there in the industry saying, 'Once we have 121, this is what it is going to cost'?

Mr Bethune: None of our competitors share their figures with us. We ask them to, but they do not. So we have to go to our suppliers and ask them to quote, and that is what we did. We said, 'Okay, we are going to need to locate'. At the stage we were doing the figures, it was still uncertain where those 121 points were going to be. There is a list of proposed sites and so forth. We took that to our suppliers and said, 'In order to get long distance data transmission to these locations, how much will it cost?' For example, for some locations it is reasonable: it is $40 or $50 a megabit. For other locations it is $200 or $300 a megabit. We actually went out to people and said 'quote'. So these are real prices that we would have to pay today to real suppliers to connect at those locations.

Mrs D'ATH: Has there been any indication that, with the backhaul and the number of points of interconnect, there may actually be a reduction in overall costs?

Mr Bethune: As a consequence of scale or volume or buying in bulk?

Mrs D'ATH: All of those factors.

Mr Bethune: As I say, we went with 121 points and said 'quote', and so we have every expectation that our suppliers would have factored that in. There was no one supplier who could cover all of those locations. Some of it was AAPT; some of it was Nextgen; and some of it was 'nobody else supplies but Telstra'.

Mrs D'ATH: Thank you. I just wanted to try to figure out how the figures were calculated.

Mr SYMON: Michael, I have a question along the same lines. I worked out that on your figures the monthly cost is about $6,500 a month. This pays for, I suppose, what and to who.

Mr Bethune: Yes. It pays for rack space.

Mr SYMON: So not only do you have to buy it, you then have to pay an ongoing rental for the space you have bought. Is that how it works?

Mr Bethune: Yes. What happens is that you turn up to somebody like the Telstra exchange—Telstra have a number of computer racks in there—and you literally say, 'I want 12 inches of space'. They use an arcane industry standard called RU to specify. Telstra say: 'Fine. That's your 12 inches of space over there. You go and bolt your equipment into it.' So we bolt our equipment. Telstra sends us an invoice every month for that 12 inches of space.

Mr SYMON: That space is not a capital cost; it is an ongoing rental.

Mr Bethune: Absolutely. That is right. Let me tell you that that kind of space is at an absolute premium, and it does not come cheap.

Mr SYMON: I am just extrapolating: if there is 121 POIs in their new facilities—because obviously they are not there at the moment—does that cost come down? Telstra have the market at the moment; you have little choice. Is it something that can happen when there are more around, or do you think it will follow the existing example?

Mr Bethune: Costs could come down; costs could go up—a couple of examples: if it does one run-out at 121, some of those points will be in Telstra exchanges because they are the only possible buildings in those locations that can supply. But others will be in Nextgen. Nextgen is a large backhaul operator that does not have retail operations. Might I say, though, that it is an interesting competitive question, which is to say: 'I'm a backhaul provider. I've been appointed as one of the 121 points of interconnect, and I now know that the rest of the industry has to come and site their equipment in my data location. How cheap am I going sell that?' I happen to know that one of the people who is going to be one of the providers recently managed to charge $2,500 for 300 watts of power on a monthly basis, purely on the basis that the equipment had to be there. So people do use fairly strong-arm commercial realities.

Mr SYMON: My other and last question is: with the current seven points of interconnect, do you have a presence at all of them?

Mr Bethune: Yes.

Mr SYMON: And do you intend to have a presence at however many points of interconnect there are in the future?

Mr Bethune: We have two choices. I am literally hoping that this 121 does not come to reality, because I just see it as so undermining of the essential policy goals of the NBN and the achievement. From the outside, I find it outrageous that, therefore, some large players, as I see it, would be able to garner the commercial benefits from effectively a public asset that they did not fund and at the cost of the ordinary Australian taxpayers that did fund it by virtue of higher price broadband. Putting that to one side, we will have to identify those areas where we have the highest density of customers currently and abandon the rest, maybe by selling those to existing providers, but either way pulling back and saying, 'Okay, in this location, this location and this location we can have a commercial operation; our revenue will cover our costs.' Having said that, though, I am not very hopeful. I think that we will probably be vacating the industry, and we have been in the industry since 1994, so I would make the point that it is kind of ironic, isn't it, that a large broadband network that is supposed to be open access and equitable could actually be the thing that forces us out. The GFC did not force us out, the tech boom did not force us out, but the NBN might.

Mr SYMON: Those are all my questions.

CHAIR: Mr Fletcher, do you have some questions?

Mr FLETCHER: Yes, I do. Thanks, Michael, for your presentation. In your business model today, is there any regulatory requirement on Telstra to provide you with a minimum number of points of interconnect?

Mr Bethune: There is no regulatory requirement that I am familiar with that Telstra must supply a particular number of points of interconnect for national coverage, no.

Mr FLETCHER: Does that mean that today, as you do your business, you have to think about how many geographical areas you want to serve and what your costs will be for each of those?

Mr Bethune: Absolutely. Of course. For instance, there is a point of interconnect for WA and there is a point of interconnect that covers both South Australia and the Northern Territory, yet there is a point of interconnect that is just for the ACT—obviously, because of its importance.

Mr FLETCHER: So those arrangements have evolved commercially?

Mr Bethune: Correct. And providers do, as you are suggesting, look at those and ask, 'How many customers can we have in WA?' and then think, 'The market's not big enough; therefore, we'll choose not to be there.' For instance, some service providers do but others do not service Tasmania for that reason.

Mr FLETCHER: In the case of Telstra, which I suppose is today's best analogy for the NBN, did they have an incentive to have a large number of points of interconnect or was the incentive to have a smaller number?

Mr Bethune: I think you would have to say that commercially they have decided that seven is sufficient. I would suggest that the NBN Co. came to not a dissimilar perspective when they decided that 14 points of interconnect, which is comparable to seven, was sufficient. It is regulatory intervention that has decided that 121 is appropriate, not commercial issues.

Mr FLETCHER: In the marketplace today, do you have options to buy connectivity to get you to a range of places in which you might not have a physical presence?

Mr Bethune: Yes, we do. There has been a suggestion that wholesalers will do the connection to the 121 points of presence, but the aggregate back will enable us, for instance, to only connect to one. That is true—and, hopefully, I am still answering your question—

Mr FLETCHER: Yes.

Mr Bethune: and it is certainly a pertinent point. I might say that we have used wholesalers in the past, and our experience has been that the use of wholesalers never provides you with a commercially viable option simply because the wholesaler adds an extra level of margin that makes you uncompetitive. So, yes, you have reduced your point-of-presence costs but you have increased other costs and you still cannot compete with your competition. So you really have to connect to those points; otherwise, you may as well not play.

Mr FLETCHER: Has NBN Co. said whether they will separately sell backhaul? In other words, your options to get to these points are to either—one extreme—physically build fibre to each of them, which is obviously not economically viable for a small player, or to buy capacity from people who have existing fibres to those points. One of those players is obviously going to be NBN Co. Have they said whether they will offer that as a commercial service?

Mr Bethune: They will be specifically regulatorily prevented from doing so. The specific rationale for the 121 points is to avoid having the NBN run the backhaul from those 121 points back to the capital cities. The NBN—

Mr FLETCHER: I think it is a slightly different point, isn't it, that the regulatory objective is to prevent it being a closed market in which the only way you can get onto the NBN and serve customers is to connect at one of seven points and you therefore foreclose anybody else offering a service in transmission between where the seven points would have been and where the 121 points are now going to be. The question I am asking is whether NBN Co. will be in that market offering a commercial service competing with presumably the likes of Telstra, Optus, Nextgen and others.

Mr Bethune: The reason I was assuming that the NBN would be disqualified from being in that market is that Mike Quigley and NBN Co. made it clear that they would be providing that service for free. From their perspective, they had the fibre in the ground. It did not cost them any more therefore it would be at no cost and that clearly would shut down the private backhaul marketplace given that you cannot compete with free.

Mr FLETCHER: The issue would then become, in terms of competitive regulation, whether they could demonstrate that the cost that they offered it at, if they offered it commercially, was in fact a genuine commercial cost and was cost based and so on. For them to offer it so-called for free is in fact simply a cross-subsidy into a market where there is competition from a market they have a monopoly in, which is a longstanding trick in the play book of monopolists.

Mr Bethune: Sure. The answer to your question is that we are unfamiliar with NBN's plans in offering commercial and unfamiliar if the ACCC would prevent it from doing so. My expectation is that they would.

Mr FLETCHER: The prices you quoted before—was that inclusive of the expected backhaul pricing in the market from the other players or is that not yet known?

Mr Bethune: Yes, that was inclusive of the backhaul component.

Mr FLETCHER: I think I heard what you say was that that would lead to decisions like the ones you have to make today where you trade off the cost of getting to a particular market against the revenue you expect to pick up in that market—is that right?

Mr Bethune: That is absolutely correct.

Mr FLETCHER: Your argument is, I think, that effectively NBN Co.'s pricing or the total pricing construct that resellers face should allow you to serve any location in Australia for the same cost—is that essentially your argument?

Mr Bethune: I am happy to leave that to government to decide. My understanding was that government stated that its objective was a national uniform wholesale price so that the costs that players faced to service somebody in Longreach were the same as the costs to service them in Vaucluse and therefore Australians, irrespective of their geographical location, would also face the same retail prices and therefore have equitable access. That was my understanding. That is not my ambition. I believe that was the government's policy ambition.

Mr FLETCHER: Based upon your long experience in the industry and your knowledge of costs in the industry, is that in your view a challenging objective to meet? In other words, you are starting from ground zero. Do the costs to serve different parts of the country vary?

Mr Bethune: Right now with Telstra on ADSL I face the same cost to service a customer in Longreach as I do one in Vaucluse, and I find it bizarre that the NBN will terminate that situation and will restore the relationship between distance from the capital city and the wholesale cost to service after spending $39 billion.

Mr FLETCHER: I suppose what I was getting into was the underlying economics of it. In other words, if you serve somebody in Longreach, that involves backhaul of traffic that is not necessary for a customer in metropolitan Sydney or Melbourne. That is true, isn't it?

Mr Bethune: It is true that we face some differential costs. An example is that to buy internet uplinks to the world in Perth is 25 per cent more expensive than it is to buy those in the CBD of Sydney. That is true, and it is about backhaul. Also, backhaul between Melbourne, Sydney, Adelaide and Perth is cheaper than it is between here and Broome or so on. That is true. But I am not saying that we should not have to pay commercial rates for backhaul. I am not trying to avoid that at all. I am just saying that I do not understand how paying commercial rates for backhaul and cranking our fixed costs to connect to the NBN are possibly related. What I do understand is that that provides barriers to entry that force all but the largest players out of the business.

CHAIR: Thank you for that. For all of us who want 22 millions equitably connected and for those of us who want rural and regional Australia connected with the world around us it is valuable evidence, so we certainly appreciate it.

Mr Bethune: Thanks very much.

CHAIR: I do not think there were any questions on notice, but if there is anything that needs to come back, we have a deadline of 8 August. If in further communication there is something you have to get back to us, if you could get it to us by then that would be great. Thank you once again for your evidence. It is appreciated.

Resolved (on motion by **Senator Stephens**):

That this committee authorises publication, including publication on the parliamentary database, of the transcript of the evidence given before it at public hearing this day.

Committee adjourned at 11:23