

S1 00:12 Hi there. My name is Glenn Williams and welcome to the Moxie podcast episode number five. This is the companion web show to the Moxie sessions. The Moxie sessions is an internet economy discussion group held once a month in Auckland, New Zealand. Its purpose is to bring together a group of interesting technofiles from across the economy to talk about how New Zealand can take advantage of the internet to improve its economic performance. And with the power of the internet, the show actually happens on currently in London and my guests are in New Zealands. Now my guests could speak at the last Moxie session and the topic was—were the topic already discuss how they UFB Ultra-Fast broadband network is coming along, and how will fiber broadband really transform New Zealand. We kind of touched on some of these issues in previous podcasts, and you're most welcome to go back to the previous sessions, which are up at themoxiesession.co.nz, but today we're going to be talking about how it can resolve the tyranny of distance – and it certainly is – and leapfrog us back into the global richness – which we love to do in New Zealand, that's for sure. So, what are people actually doing with ultrafast broadband anyway that is also something we will discuss. I also want to mention though that this podcast is generously supported by Internet New Zealand. If you haven't already registered for NetHui which is something that is proudly brought to you by Internet New Zealand, then go and do it at nethui.org.nz and sign up for what I'm sure will be the most excellent conference in Wellington from the eighth to the tenth of July. It has been running for a few years now, and I know it's a fantastic conference that brings together all kinds of talented minds to really discuss the same sort of issues that we'll be discussing today, about how the internet can really take New Zealand forward, and how we can grab a hold of a whole bunch of opportunities that are out there, that are existing, that people are working with now, that need to tell other people about it. It's just bringing all great minds to discuss this kind of stuff. So without further ado, let's spring on our guests. Rowan McMahan, who is the strategy director at Crown Fiber Holdings. Welcome to the show Rowan.

S2 02:39 Good morning Glenn. How are you?  
S1 02:40 Very well, thank you very much. And he discussed the progress thus far and the appeal to business for ultra fast broadband at the last Moxie session. He'll be outlining some of his points very shortly about that. Also, Rosalie Nelson. Welcome to you.

S3 02:56 Good morning Glenn.  
S1 02:57 Rosalie is the manager of Market Strategy and Insight at Chorus New Zealand Limited, and she will be talking about why building the Ultra-Fast internet is only the start. There are many other things that remain to be done. Welcome to you, Rosalie. Bill Bennett, welcome to you.

S4 03:18 Good Morning.  
S1 03:20 He's a freelance journalist in Auckland, mostly talking about technology stuff. He's going to be talking about some of the things that could hold the UFB network back, especially government policy. First of all, I want to ask you all though, who is actually on ultra-fast broadband right now? Any of you?

S3 03:39 Not me.  
[laughter]

S3 03:40 I think I'm a year or two out, unfortunately.  
S1 03:44 You're talking about your home or work?  
S3 03:47 At home. I'm suspecting we are at work. I have to say I haven't validated that but yes, I would say we definitely are at work.

S1 03:54 We had hoped so. What about you? What about you Rowan?  
S2 03:57 I've been sitting on a fiber connection here at work but the service has yet to be converted over to the UFB network, that I'll have it for next 12 months. And I am looking forward to connection in hopefully about April of next year.

S1 04:11 April of next year. Fingers crossed, fingers crossed. Bill you're of course a freelance journalist so you're always sort of working from home or out, out in

about. What about you? You connected?

S4 04:19 No. I'm not on it yet, I would love to be. I'm not even on the plans which look forward to the next couple of years. So, I'm reckoning going the way we live in New Zealand, I'll probably move house by the time it arrives here. And when I do move, I'm definitely looking for place that's got it.

S1 04:41 Yeah, absolutely. That was one of the frustrating things and before I left Auckland, I looked at the plan for Mount Albert and we weren't – I don't think even think we were on the list for the next three or four years where we were and it was so frustrating because we were only a suburb away. You can see this fiber rolling out, but I suppose this got to roll out somewhere first of all anyway. Rowen, I'm starting with you. You were talking about the progress so far, and I think that's a good place to start. How is the network going? How's the rollout going?

S2 05:08 The network rollout is going reasonably well on the whole. What you should find is that by the end of this month with our four – with the government's four partners being in the process of signing up a number of network stages at the moment, in excess of 200,000 premises will have access to ultra-fast broadband. And if you take account of the fact that many premises may have more than one end user particularly things like business parks and office towers and apartment blocks and the like. That should mean that well in excessive 250,000 households and businesses and schools and so on have access to you, UFB. I think that's really important because that means that the network will be something like 20% complete. You clearly need to build the infrastructure before you can get the uptake. The more progress you make with the network build, the in a position you are to attract those new and innovative uses that are going to excite us.

S1 06:07 Have there been any major setbacks with the physical laying of this fiber?

S2 06:13 Not really. It's a challenging situation in Christchurch with the Christchurch earthquake recovery and rebuild effort, but on the whole, the big challenges are across the board. It's civil engineering task to build the fifth utility into most needed on premises and if you think of how long it took for us to build the first four utilities, things like water articulation, and electricity, and topicality, and gas services, and so on. They all took many decades to reach most of our homes, also just to try to get fibre broadband all the way to your premise in about eight and half years is a significant civil engineering challenge. The group of course have to battle with the volcanic terrain, and all sorts of challenging hillsides and the like of which we have in New Zealand.

S1 07:00 Is there enough money in the in the pot to make sure this whole network gets rolled out correctly as planned?

S2 07:07 I certainly hope there is. Each of our four partners has got a guaranteed contribution from the government in return for each premise that they pass with fiber over the next few years. So that's the government's side of the bargain. We really probably speak to Rosalie and our other partners to comment on their side of things.

S1 07:30 Okay, let's move on to Rosalie. You're there at Chorus right there in the thick of it is as well and you were talking about why building it is only just the start.

S3 07:40 Look absolutely I mean what we have to do is to think about UFB as a very powerful platform and I'd say even a catalyst. The real question that I was posing is do we have the right policies settings the access to capital, the R&D programs, the education programs, and I guess even the culture appetite to ensure that we get the economic and the social and the commercial benefits it can deliver. Because in of itself, Ultra-fast broadband to premises and business will deliver very, very fast broadband. But, if you look at a lot of the economic studies, it really needs to be harnessed as a tool for both productivity gain, but also for using it as a way of really taking New Zealand to the rest of the world. So, one of the things that we looked at, we did a very considerable study of both consumers and business. Last year to really try and assess their attitudes towards technology and towards fiber adoption. And with business

there were a couple of things really came up which is that for a lot of businesses they will regard fiber – first of all as just one piece of a plan, so it's not an answer in itself. It's really part of a wider IET solution, but also for many of them, they still regard IT and telecommunication as a cost center – in other words it's really about sustaining any business in the communication. And what we not really seeing on scale is that shift toward them thinking of it as strategic tool that really help them to do business better. To grow revenues, to expand and to export markets to find new ways of serving customers. And that something that I guess we really need to think about it as a country. How do we ensure that we have the right skills sets, that we upscale small to medium businesses that we get the right kind of environment for research and development and innovation to take advantage of this.

S1 09:43 You mentioned education there, Rosalie, so where does that education come from? Everyone obviously does need to be told what they can do with this new technology.

S3 09:56 I think that's a part of it. If you think about particularly for sort of small to medium business because that really is the core of our economy, it comprises something like 90% is in of business is in New Zealand, are less than 20 employees in size. So, when you thinking of how do you begin to up scale them, typically you'll see that those are the early adopters of technology will have a CEO or board of directors that understand what the potential will be and a willing to give that kind of support and endorsement to programs that will allow their thoughts of productivity benefits. I think that we need to be thinking as to how do we reach the founders and the leaders. It's not just really being driven by the IT managers. We do have a very forward program which I know Rohn will be able to talk to, which is getting fiber into every school but that's just, again, part of the solution. The other part of it is how do we get the education pedagogy. How do we get the philosophy and the processes around e-learning such that students know how they can really capitalize on this and take advantage of the opportunities.

S1 11:16 Because at the end of the day it's a motorway compared to the backstreet, isn't it? I mean it's really, it's just a platform from which to do things. Am I right Bill? I mean is that what it is?

S4 11:28 I mean one of the things that I've been looking at is the uptake rate which – there's been a lot of concern that to date the uptake hasn't been that good. When I last looked at the numbers it was about 3% of the premises the past has taken the network, which there's been some hand wringing. I'm not too concern about that because it's early days, and the marketing to consumers hasn't really gotten underway yet. And anyway when you've only gotten 20% of the nation covered there's a network effect and you don't really need to be on it until everyone else is on it–

S1 12:10 Is it because I need the outlines on it because I have fiber here in London, but I hadn't any got up because I want to make sure that I am on the fastest thing. I'm not sure why apart from doing the Skype session here and watching some streaming TV which you can do anyway on normal broadband anyway. I just personally because I am gigger. I want to make sure I'm on the fastest thing. But I guess I'm a weirdo, right? Not everyone is like that.

S4 12:39 Yeah. That's right. It's a freak show apart from– I mean businesses, health establishments, schools and so on, they will all be on it quite early. In fact, the way the network is being built is they're getting it first anyway. And I think that the first two years the role out is focusing on delivering to those people. But as the consumers you're quite right – its a bit of a freak show at the moment. And part of the problem is – like I said – there's not been the marketing and there's not really their network effect – there's not enough of your friends on it for you to get the benefits of being on. It's like being the only man in the country with a fax machine – there's no one to fax. But the other issue is -and it's something I thinks going to start to dominate as we get own with the project. Is that there's not really a compelling reason for consumers

other than geeks and so on to get on. And they won't be until the network is able to deliver the kind of entertainment content that the fiber networks overseas are delivering and that really means television. Basically fiber is about video, if copper is about voice, fiber is about video.

S1 13:55

Do you guys agree?

S3 13:55

Perhaps if I sort of jump-in in there. I think there's a couple of things to really note about the adoption. And a part of it is that what we're building here is a wholesale network. So it totally does depend upon the retail service providers, which are the Vodafones and the Telecom New Zealands to be launching the services. They have taken time in terms of testing to try and get the proposition right. Telecom has only recently launched, and Vodafone is planning to launch relatively soon, we don't have a defined date. And because between just those two players alone you have something 80% of the broadband market of course that has an impact on the scale of uptake. And I think the second part to it too is because it has been brought up to priority areas. It does tend to mean that it is somewhat fragmented. So all of Auckland is going to take eight years, it's really being done on a almost suburb by suburb type basis. So for the RSPs they're actually looking at how can we ensure that we get enough scale to really go above the line and promote it, and not ensure that we don't get lots of noise from those who can't receive it. So you've got a couple of those sort of factors coming in but actually our research last year did show that is was a high level of awareness from consumers. They believed that ultra-fast broadband was going to— was good for New Zealand, it was a technological upgrade and it would help us to catch up with the rest of the world. Now thinking that it's good for New Zealand, they didn't really have a clear idea or what good actually meant. But what we did actually find is that —what is actually really driving the demand and the demand is growing very rapidly. It's being the growth in the number of devices within the home. What you now have, and this was particularly strong amongst families with younger children because you had—you've seen massive growth between the number of smartphones within the home which are using WiFi. Also really considerable growth in the number of tablets and also laptops. Those factors together and it was the issues of contention of actually having multiple users who were also using increasing amounts of video and I mean it's not just about entertainment on the mind that is very much a big part of it. But the reality is for a lot of homes if they're not accessing it legally they going for it illegally.

S1 16:21

But it does feel though that it is for the home it's all about entertainment. And apart from nice video, calls with your family and friends in London. I can't think of any other reasons for the home. Is it because those reasons aren't there yet but they will come?

S3 16:38

Look, I think what is actually happening within the home is that it's about the video but the video is not just about what we're consuming but also what we're uploading to others. Let's not forget that New Zealand is a nation of small business — has roughly about 200,000 home-based businesses. You've also got the demands from people who are either trying to work from home, the small business owners who need to be able to access from home and have that kind of quality connect and for a lot of those guys actually a good quality video conferencing does become important. And found that with the small businesses, for a lot of them, it was, how can we upload sort of training videos onto YouTube that will help make it more cost effective for us to distribute our products so it's— yes, entertainment is absolutely a core part of that, but I think we also need to be aware that this video comes in many, many forms these days, and there's multiple uses between personal and professional. It's those use of sort of multiple devices concurrently, that is really helping to drive demand.

S1 17:47

Rohan let's talk about this role now to schools as well, because it's the kids that are growing up with this stuff that are going to be using it in ways that we can't even imagine in 10, 20 years time. Will that help the uptake as well if the kids

have this fast stuff at school and then they the demand the same at home – whether it be with the parents or as they grow up, grow older and go out fleading that they will also wanted to make sure that they still got same the level of service wherever they are.

S2 18:19

I think it certainly will and maybe I can just tell you a little story. I was out at Point England school in the eastern suburbs of Auckland yesterday that's one of the group of schools in underserved areas – not well off areas in terms of the incomes levels available and a lot of state support provided in that neighborhood. There's now eight schools that are connected to Ultra-fast broadband and they're getting some really good benefits. What they have there is not just the pipe, they have thought really carefully about the pedagogy and the full solution. So each of the students have their own netbook device which the parents contribute to the financing of as well as some philanthropic funding and what they're really thought about is the whole education ecosystem so the kids in that neighborhood would with some kind of socio-economic background may not have an internet connection at home; so they actually use the private service from the school with community WiFi. So that allows the kids to bring the device home, and to be connected, and to do their homework at home. By contrast, my oldest child, and there is literally not enough devices in the classroom for them to complete their assignments during the class. So she brings the device home—she pops onto with one of our devices at home and does the homework from home when she might be doing it at school. So you really do have to look at the whole ecosystem, but clearly, our kids are getting digital at a rate of knots and they want to have the same kind of activity options as they have a school. But I do think it's got to be that much more of a just the pipe, it's the whole picture, which certainly seen at school. Our target is probably the most of any segment, and that infrastructure has been prioritized for that neighborhood, so prospects are quite good there.

S1 20:10

I want to touch on government policy. Bill, you were talking about current government policy, or perhaps future government policy that might hold some of this stuff back.

S4 20:20

Yeah, but government policy, up until the point where the project started, I think the government policy settings were pretty good, and it was actually quite impressive the way that that as all done in the course of one government for basically ready to go within three years was impressive. The problem is that the project seems to sit in a silo of its own, and it's not necessarily joined out to other bits of government policy now. At the Moxie session, we did discuss that in fact, there is quite a good linkage with the education sector which we've just been talking about, and that will –the fruits about are going to be seen quite soon. But it's not, but the policy settings for fiber and communications don't really mesh very well with say for example, broadcast policy and strategy. And New Zealand's rules on broadcasting, a really quite different of other countries, we don't have a state broadcaster in the sense of the BBC or the Australia's ABC, but we do have TV as I said – but it's commercial operation and what's happened here is most of the rights to entertainment contents and sports content and so on, have gone to just one organization, which is, of course Skye – and that's not regulated. We don't have the kind of tight regulation that you see for example in Australia. And that's starting to hold things back and it would be nice—I mean I think it makes a lot of sense to have the broadcasting portfolio in the same ministerial portfolios as communications.

S1 22:09

But doesn't the nature of the internet and the freedom of that, provide the opportunity for entrepreneurial broadcasters to start up? Whether it be public interest or not, broadcasting in New Zealand but over these brand new, big pipes?

S4 22:27

Yes, it certainly does and I think we're going to see that. I know of people who are contemplating video projects at the moment who wouldn't have done it otherwise and I think you will. I think we'll see quite a flaring but that's not the same as the big mass entertainment things when where the all blacks play,

pretty much 90% of the country wants to see that game. And they will expect to see it on fiber and they will expect to see—I'm hoping they'll expect to see it from more than one provider which doesn't happen at the moment. I think that's critical because you see the issue is — is we don't really reap the economic benefits of the network until lots of people — hopefully the majority of people are using it at home. Then we can start see some real well economic benefits and I think those economic benefits are denied to us until we sort the whole broadcasting issue. I think the two things belonging the same policy back it.

S1 23:29

Should it be aligned with broadcasting?

S2 23:32

I think the governments currently has said that that's not the way they're seeking and it's not for me to overrule the point of view on those in those matters. But I'm sure that it's something that will keep a watch [inaudible] and the government doesn't want to see a joined up approach to how we look at using ultra-fast broadband. So, just to give you one example, I was in Wellington last week and presenting to a group of government agencies that have been organized by the Department of Internal Affairs which is actually around on what the uptight prospects are for different agencies. And there are different drivers of demand in different government agencies. If you are a service delivery shop with a shop found in every town, that's very different from a small policy agency, or crown owned company that might have a single office. So, you've got to look for those joint ventures and I'm sure the government will keep doing that. And it's worth adding also that the debate about sports rights and so on, that not a debate, that is unique to New Zealand binding things. In the UK when you own—for example the Uview service that was back by BBC where it was promptly sued by [inaudible]. Those debates over common carrier right and the like are in every country and every country has slightly different ways of seeing how they can find the best approach.

S1 24:58

What about the pipe out of New Zealand? What part does that play? Does it hold that back? Is the capacity— if everyone was connected to ultra-fast in New Zealand, do we need another pipe to cope with the traffic to go out to our international friends?

S4 25:16

There are as many asks that question, as there are people in the fiber business, I think. But the simple answer is for the moment we're okay. We're probably going to need another pipe. There are plans for another pipe across the Tasman and at the moment, that seems to be the approach. Interestingly the amount of— I mean historically New Zealand has looked to the US to get stuff off the servers and so on. But increasingly that's now coming out of Sydney. And a lot of international content is being now stored and mirrored in Australia which we can get at reasonable ping times from New Zealand. So that looks to be the answer at the moment.

S2 26:02

Glen, I think there is an excess of capacity at the moment on cross-cable system, and that will get filled up over time that the cable can be upgraded further. We've simply noticed the same trend with the [inaudible] locating in Sydney. One that's just open very recently is Amazon Web Services, AWS. And then has a the prospect of a lot more content, getting hosted in Sydney. And there's been a lot of data center development here in New Zealand as well in the last for years, so there is the prospect for more content to the case hearing here hosted in New Zealand. I think it improved connectivity options internationally are always going to be helpful, they would help to bring the prices down and that's always good. But it's really up to the service providers to try to optimize the solution that they offer to us. I'm certainly seen that some of best services that are out there are where it's really the service provider who has worked out a right level of international connectivity to provision for their customers, looking at where the content's going to be coming from because the UFB network is by it's natural simply a local access network. It's very fast onramp onto the internet, but if once you get there you find a traffic jam then you don't get a good user experience.

S3 27:20 Yeah, I would agree with Rohan on it. I mean clearly when you start to get a 100 megabit per second packages out there then there will be increasing bandwidth and the RSPs do need to think about how they manage that. But I guess the other thing that I would just add to this is that one of the things we would really love to see is a shift within the market which is currently very focused just really purely on price and access within which data caps are being used as a means monetizing, and I guess managing that bandwidth to one in which we actually look at how we can enhance the services portfolio and capability. And we're sort of talking to the retail service providers about thinking more about how they can actually create or craft a portfolio that's not just a mirror or a replication of what is out there in the corporate world but really capitalizes on the symmetry that fiber can bring—

S1 28:17 So it's saying including that upload speed because that seems to be artificially constrained?

S3 28:23 Yeah. There's a number of fiber options which it'll really depend upon what the user actually wants. Do they, will they get more value from the higher download speed and a slightly lower uplink, or do they want just full symmetrical capability. And those are all options within the plans that are available within the templates that we actually have. But if we compare New Zealand to the rest of the world. If we would look for example a Verizon in the US, and the services portfolio that they have created around fiber which is around managed home gateways that connect the devices, it's remote home management where you can manage your electricity supply to devices, your heating your lighting. There's video surveillance that is a part of it – you've got the whole entertainment, you got the music on demand you got online backup and storage. I mean none of those things are really available here in New Zealand and its really getting the RSP to think of it differently about how they can increase their wallet share from the households through the use of more specific fiber portfolio.

S1 29:36 That's great and it's definitely getting back to that education argument. The education from the ISPs back to that consumers about what they can do with this. And that was a fantastic lesson for us in stuff just there that you had of stuff you can do with a good fiber connection. Right?

S3 29:50 Yeah.

S1 29:50 If you want go and see some more notes of about what we've been talking about, you can over at [themoxiesessions.co.nz](http://themoxiesessions.co.nz). That's where this exist as a podcast. You can also find that on Itunes. Also thank you very much to the sponsor and the support from Internet New Zealand who are putting together NetHui. Now you're going to want to go along to this, it's in Wellington in July on the 8th to the 10th and it's all about shaping our future together using the Internet and really call innovative ways. So go along to and sign up on the website at [nethui.org.nz](http://nethui.org.nz). I'm sure it will be a most excellents conference. Thanks very much to Internet New Zealand and thanks so much to our guest as well, who have to get up quite early or be at work very early for this because of the time differences between New Zealand and London. Thank you very much to Rohan MacMahon who is the Strategy Director at Crown Fiber Holdings. Thanks very much to you. Where do people can find out what you're doing online? Have you got a Twitter account, people can follow?

S2 30:58 Absolutely Glenn at Crown Fibre Holdings so they can follow me on Twitter @rohmac or visit [cfh.govt.nz](http://cfh.govt.nz).

S1 31:11 And Rosalie Nelson who is that Chorus New Zealand, where can people keep up with you online?

S3 31:17 Look the main way is either through LinkedIn for me or alternatively we will be increasingly providing analysis and insight via our website which is [chorus.co.nz](http://chorus.co.nz).

S1 31:31 Brilliant stuff. How about you Bill?

S4 31:33 I've got my own website [billbennett.co.nz](http://billbennett.co.nz) , it's all one word. And I turn up in various publications like New Zealand Business, Management Magazine and so

S1 31:46

on, on a regular basis.

Twitter.com/radiowammo, that's still my Twitter handle, and thank you very much for tuning in. Tell all your friends about the Moxie-sessions. The [moxiesessions.co.nz](http://moxiesessions.co.nz). There will be another one, of course, in July and they'll be a new topic in Auckland and you can go along with that. I believe there's a now going to be away for you to request to go along to the actual session as well that's— but if you can't make along they will be a podcast after that as well.

Thank you very much to all my guest and you for tuning in and we'll catch you next time, bye bye.

[music]