Ladies and gentlemen, it's a genuine pleasure to welcome John Chambers, executive director of innovation at Telstra. He's going to update us on all the appliances in our homes that are talking to each other about us. Please make him welcome.

(APPLAUSE)

JOHN CHAMBERS: Thank you, Julie, and thanks, Johanna, and Teresa, and everybody at ACCAN who's put this great conference together, and for having me today. It's a real privilege to be here. We've got an amazing agenda lined up, with people much smarter than I speaking over the next couple of days. I'll be speaking about the smarthome, what's in market at the moment, what we see coming, and trying to give you very much a market context for that. I did want to start by recognising Uncle Allen and the Gadigal people, the custodians of this land, and the fact that we're able to meet on it today - their elders past, present and emerging, and what a wonderful people they are. Firstly, I wanted to start with a little video. Minister Fifield gave me quite a nice segue here - when we think about smarthomes, connected homes, intelligent homes - there are so many words for them, and I'll talk a lot about that today - control of the home is increasingly important. There's so much that you can do - it's running rampant in many places, but having control of the home in a way that's meaningful to you is increasingly important. We've put something together that captures our existing capability, but a bit for the future too. Hopefully it'll work...

I'm not sure if the sound will play...

JULIE McCROSSIN: There is sound...?

JOHN CHAMBERS: I think we've got a pause there...

JULIE McCROSSIN: Could I suggest - is it possible to continue...

(VIDEO PLAYS)

That's an example - people think about the end-to-end ecosystem of being able to control what's going on in the home. This speaks to something we hear a lot from our customers about - the sense that connectivity has gotten out of control, and that our kids are doing things we don't understand or feel we are a party to or have agency over. We've been working on - we've launched something called the Telstra Home Dashboard, which gives you access to what's going into your home from a broadband perspective, and also we're about to launch something called Homework Time, which allows you to basically shut down connectivity, other than maybe Google and accessing things for study, so you have more ability to control what's going on with your kids at certain times of the day. That's an example of how we think about things. Today, I'll talk to you a bit more about how we think about the smarthome Telstra. We think about it in four key ways - that it's customisable, that a smarthome is something that you can extend and grow and make work for you, and every home is different - I'll talk about that. That it's robust and it's serviceable. So there are many versions of home smarthomes out there - it's exciting to see innovation in the ecosystem. Ultimately, we are passionate about homes that work for everybody, and meet Telstra's vision - I'll talk about it more in a moment - but meet everybody, and are serviceable as well, which means they are strong, robust platforms that can be serviced. That they're secure - you've got Dr Vijay talking after me about the importance of security and the Internet of Things and smarthomes. We are deeply passionate and worked very hard to make sure all the platforms we work on are deep and secure. And that they're future-proof. Ultimately, over time, you'll be able to grow your home and the connectivity and devices in your home to work for you. So... I wanted to start by saying - who here has a smarthome of any kind? Or who would say they've got something smart at home beyond, obviously, internet connectivity? A handful? Absolutely. That's about right, for Australia at the moment. At the moment, it's definitely sub-10% would say they've got a smarthome of any kind. New devices like Google Home are increasing that. It's a voice-acted feature of a smarthome, but it's not a smarthome. It's still early days. I was around in the dial-up internet days and was in the mobile business for a while - I've seen a lot of product development. I see where smarthomes are at at the moment are the very early dial-up days of broadband, back when people are saying, "Is this thing really needed? What's in it for me? I like going to Video Ezy and Blockbuster - why would I do streaming videos? I like encyclopaedia Britannia - it's awesome. Why would I go to Wikipedia and Google stuff?" All this was very real, and not that long ago, when you think about it. We were wrestling with - is there utility in asking about broadband? Today, obviously it's challenged a lot. As consumers understood the utility of what it brings, they adopted it. As it should be. I ask the question today about smarter homes - I manage my own power myself, rather than automate it? I know in my home, I have it set up so when the kids leave, discretionary lights and things are turned off. I have my thermostat set at 11:00 at night - my kids love leaving the heater on all night. Drives me nuts. Mine turns off at 11:00 - they can suffer through the night. Things like that help me control my energy consumption. The idea is that we can manage that better ourselves. This is still pretty prevalent today. Things like insurance companies guessing our home risk profile. My risk profile is probably somewhere between 30% and 40% better than I'm rewarded for with my insurance company. With my smarthome, I can tell you every time a storm goes past, all my storms and windows are closed, I can tell you I don't have any water leaks. All these things that drive risk and insurance and cost me every month in my home and contents policy, I can prove otherwise. Maybe we'll look back one day and say, "I can't believe we insured ourselves based on guesswork than data." Councils still pick up empty bins. I think in five years, we'll maybe look back and go, "Gosh, I can't believe we used to act that way." That's when the utility of smarthomes will become meaningful and mass adoption will begin. I think we picked up about 5% in Australia now, and it will take off in the next 2-3 years as more and more utility becomes real. We're very optimistic at Telstra. The predictions are that connected devices in the home will move from 9 today towards 30 in the next three years. I've got over 50 at home at the moment. I'm a bit of a test case. But that's - that's why I crave more control over what's going on and being able to create down time for my kids, and so forth. That is going to happen. That connectivity is going to happen. How we bring it together, we see at Telstra, as part of our role, to make sure it comes together in a way for the customer that is configurable, future-proof and safe - all of those things. Just to quickly talk about what we've launched - we have launched Telstra smarthome over the last six months or so. We'd say it's an early entry into this space of home Internet of Things, and it will grow rapidly in the years ahead. At the moment, it's a package - we've put it into a watch-and-monitor package with some smart plugs and censors. It's $25 a month, including your equipment, and all the servicing from Telstra. We think that's really important, because the customers we're talking to and working with value the fact that they can call us for anything that happens in a smarthome environment. We manage and secure this end-to-end. We care about this end-to-end. It's not a matter of having dozens of different devices and you've got to work out who to call when it goes wrong - we've got to look after it, like all our products. That's really important, for this to take off. Importantly, it all comes together on one app. I can tell you a great story about my dog Scout. He's a bit of a jailbreak - he loves to go out. I reckon he's probably gone out 10-12 times in the last few years. The kids always manage to leave the front door and the gate open, and it's quite expensive - we've had two visits to the pound, about $250 a pop, quite annoying for me. What I found was, before I had my Telstra smarthome in place, I used to have a whole bunch of other smarthome services - multiple apps, multiple configurations. I could learn what was go on after the fact, but couldn't control it in real-time. For example, if the kids left the front door open, I would see from my video doorbell that it was open. If they've left the gate open, I would see from another service that they've left the gate open. I couldn't connect the two things to say, "If the front door and the gate are open for more than a full minute, give me a text." I could tell the dog would get out. These are things where having a fully connected environment - creating the right alerts and automations - we think that's when the home becomes really smart, as opposed to a whole bunch of disconnected, but connected environment. Does that make sense? That's what we're passionate about. That's why we could be accused at times of going slower than start-ups in this space, but every device we add is fully connected and automatable between each other, and fully securable end-to-end. I want to talk a little bit about how we think about smarthome and smarthomes in ways that we think protects consumers and Australians as this space evolves. We do think pretty deeply about this. The first is that every smarthome is different. You need to be working on platforms that can be tailored for your home. The needs that I have will be closer to Ingrid, where I've got now older teenage kids. I enjoy things happening in a smarthome - they get themselves home when the front door opens between 3:00 and 5:00, I get a video sent to me. "Ella or Zoe has got home." I like the fact that their boyfriend isn't with them - these things matter. I've got a ticker on my liquor cabinet, because my son likes expensive liquor... There could be a day when I'm more like Lynne, when Liz and I are home alone, we'll be on the road more, and keeping an eye on the home when we're not there - quite a different set of use cases. It's important that your platform can grow with you, it's not designed or set by your current life stage. Every home is different. Literally, we haven't seen any two homes being put together by our customers in the same way. Incredible use cases. We had a great video from a customer last week where they were so happy they found the culprit stealing fruit from their fruit trees - they thought it was a neighbour, but it was a possum. The fact that you can customise for your need is really, really critical. We also think being able to have advice - one thing Telstra obviously offer, and we encourage other smarthome people to offer, is advice. You can come into a store, talk pout your needs, where you're at, and what you might need for that next stage. I didn't want to finish without talking about some of the work we're doing with Australians with a disability. This is really exciting for us. We see - waiting for a better platform, little things that are life-changing. Things like being able to turn on a light globe, a television remotely through a smart plug without having to use your hand - we've now bought Google Home - a voice-acted system, connected it to our smarthome. We're working with people like Jason and many others, using our technicians to install it for them. Jason cannot turn a light on and off, an entertainment system on and off. In his group home, sometimes he'll wait 15 minutes for an aid, or it might be waking someone up after midnight. With Telstra Home Voice and Google Home, he can do a lot of functions for himself. It's about the most exciting thing Jason's seen, which is important to us. These are changing lives. We have work to do with people like Jason to evolve our platform to suit them really well. Accessibility is a huge opportunity and huge challenge for a company like Telstra with our size. We work very hard at it and we don't always get it right, but we know we have to work and co-design with guys like Jason to do better at that. We're very excited about the opportunities there. Google Home is a game changer but, again, it can be an announce. As this technology comes to play, a lot of it is best efforts. If you start to implement this in your home and realise that when you need it's not working at the moment - which can happen - it's very frustrating. Broadband's become incredibly - a necessity. We think these technologies will increasingly become a necessity. Having robust platforms that always work end-to-end - we think it's critical. It's great to have new tech, but it's got to work when you need it. Very quickly touching on security dash this is fundamental for the industry. Major hacks will take, we think, consumer confidence and trust in smarthomes backwards very rapidly. We work very hard with our cybersecurity teams and global partners to ensure our platform is end-to-end encrypted and protected, all videos hosted onshore in Australia are in data centres we have full control of. We test every device that comes onto our platform end-to-end for deep encryption so they can't be hacked. While hackers are incredibly versatile and clever, we work to epically hack our own systems constantly to ensure we're at the front end of what could happen. This is fundamental - we must provide systems that are safe for our customers. The idea of someone's video stream at home or front door lock being hacked is just unacceptable and appalling, so that's why we work so hard and expect that everybody in the industry will be doing the same. But I'm sure at your next session you'll hear more about that and some of the challenges in doing that well. Finally, just a little bit about our road map - what are the kind of things coming? At the moment, with Telstra smart home, you can have lights turned on and off, thermostat with your heating turned up and down, smart plugs, lamps, plug-in heaters, anything that could be turned off remotely or automatically. Different cameras, indoor or outdoor, and motion sensors - movement around the house, door sensors, whatever it might be... These are all the things we've got today. We think it creates a real great start. We've got a lot of exciting things coming. Water leak detectors is a huge driver of risk in homes - we're working to bring in good water-leak protections, both spot detection and pipe detection, so that you'll be able to ensure that there isn't a water leak in the home. We think that's a huge drive-down of insurance risk and cost of insurance. More integration into the home - when you build a home, you'll be able to build Telstra smarthome into your lights and sockets, with plugs over the top. Smart doorbells, which we'll be adding when we get that right. Garage-door controllers. Entertainment integration so that you can remotely turn on your TV, et cetera. Those are already coming. Air-conditioning, and music integration. It's a mix of value from energy management, entertainment, and being able to have more convenient access to things in the home, and also things that will reduce your risk. That's how we see the industry evolving. With that, I think I might leave some time for questions, if I can.

JULIE McCROSSIN: Thank you. You certainly can. Please give a special round of applause...

(APPLAUSE)

An opportunity for questions or comments - just raise your hand, and I'll whiz to you. Thank you. We'll try and share the time. I'll hold the microphone.

>> My name is Vincent Yu...

JULIE McCROSSIN: Can you boost the level, please?

>> I come from Differently Abled. We have an application which has been here for roughly about five years, but I've been to this conference three years in a row trying to give the people with disability a go at connecting - this year, we've got smoke alarms from councils, we have a travel app to tell the general public - the app is done by people with intellectual disabilities...

JULIE McCROSSIN: Could I just ask you - no offence, I'd love to give you an opportunity to share your information about your app, but is there anything related to this presentation...?

>> Yes. We've got a small - one of the problems is that we're losing the connectivity. The data is too expensive. Every year, we've been saying that. As the parents of people with disability who would love to see what they're doing with connecting with FaceTime, every time we talk to them - we don't mind paying a little bit more, but the price of data at the moment is unreachable at this stage.

JOHN CHAMBERS: Mobile data, you're talking about?

>> We'll take this opportunity to propose a plan that NDIS will support, so getting all the disability people a fair go at connectivity.

JULIE McCROSSIN: Thank you very much. Thank you. Would you like to comment on that?

JOHN CHAMBERS: I wouldn't want to comment too much on mobile or fixed issues today. The price of data has reduced quite rapidly in the last few years. The latest releases from Vodafone and Telstra are going down. It is becoming far more affordable. We'll be doing work with the NDIS as well, about particular plans for the NDIS rollout. Maybe we can catch up in the break, Vincent, but I think there are - I think things are certainly improving in the price of data across the industry.

JULIE McCROSSIN: Thank you.

GREG KILLEEN: Thanks for your presentation, John. Two questions. Firstly, it's great to see the innovation of integrated homes and smarthomes. You're talking about using it to lower your power consumption by closing things as required. Just a question - don't all the smart switches need to be plugged into electricity working 24/7 to enable your smarthome to access and not break them?

JOHN CHAMBERS: Do the smart switches...? Yes. At the moment, as I was saying, we haven't built Telstra Smart Home into the actual circuits of the houses yet. We're working on those technologies. At the moment, you put a smart plug onto an existing power plug, then you can turn it on and off from there.

GREG KILLEEN: So, although you're trying to save power using the smarthome, it'll burn electricity while the smart switches are on 24/7?

JOHN CHAMBERS: There'll be a little bit of stand-by time, Greg, but for me, I use it on appliances where the discretionary savings I make are far greater than that stand-by time.

GREG KILLEEN: One other question regarding the Google Home. Although it operates sound systems and televisions, have you trialled it when you've turned those systems on, have the volume cranked up, and can Google Hominids you while the sound's up very loud?

JOHN CHAMBERS: It is more difficult. Google, we think, is better than some of the other devices in market. If you're across the room, certainly there are some challenges there.

JULIE McCROSSIN: If there was a prize for quality questions, would this man get it or what! Give him a round of applause for such specificity!

(APPLAUSE)

Who else has a question?

>> Thank you for your interesting presentation. They're wonderful services. My name's Michael Fraser. I'd like to ask you about how you use this wealth of data that you will be collecting and harvesting. I'm concerned about the encroachment of surveillance on our privacy.

JOHN CHAMBERS: We look after our customers' data with intense scrutiny, as you can imagine. It's the same for Smart Homes as it is for any other customer data and privacy regulations that we submit to, and are very passionate about. We only would ever use customer data here in an anonymous way - we prove the service, as we would with anything else. Never in a personal way, and certainly never used for anything else without consent from our customers. It's a very important - we've been public about this many times before, Michael, but I'd love to talk to you more about it.

JULIE McCROSSIN: Can I ask you - because I'm aware of the extraordinary proportion of the Australian population subject to domestic violence and child protection issues, even though I totally understand the emphasis on control and the joy of the benign, patriarch or matriarch, and I had children who weren't crazy for homework either, obviously the capacity for domestic violence and controlling relationships is devastating. It's not just the dog who won't be able to leave the house! Is there someone studying this? Thank you. I just want to get some insight.

>> I work with a team of digital media research centres, including the Justice School of Law, that's been awarded a grant from the ACCAN foundation to study the security of devices. One of the things we're really concerned about - we work with domestic violence organisations, and they tell us that nearly 80% of the women that come through are a women's shelter have a well-founded fear that their devices are being surveilled or their cloud accounts are being accessed by their partner or abusive ex-partner. That's something that we haven't really been able to provide the resources to support the people in the front lines here to be able to make sure that they can clean their devices, to make sure that they can trust - again, to use that word - the different devices that they've got in their homes and on their person.

JULIE McCROSSIN: Thank you. I raise it with Telstra...

JOHN CHAMBERS: Absolutely.

JULIE McCROSSIN: Would you like to comment?

JOHN CHAMBERS: Absolutely. We work very closely with domestic violence agencies as well. A great example of what we haven't launched yet - location and presence, being able to track people and things around the country and around the home, and how they interact with the home, is a very powerful way to get your home being more smart, more active. We haven't launched anything in those regards. We're working very closely with the domestic violence agencies to ensure that, when we do launch any solutions that might allow for tracking or presence monitoring, that they do much more good than harm. There's always a lot of things out there already that do a lot of harm in these spaces. We're always working to improve the outcomes.

JULIE McCROSSIN: I must say, I wasn't critiquing Telstra - it's how the humans use the tool, isn't it? It's us building in that, I guess, digital literacy and advocacy for people who may be deleteriously affected within a family context. Do you want to introduce yourself? She said, "That lady's before me." This is the kind of courtesy you expect at an ACCAN conference!

>> Mary-Anne St Clair, Broadband for the Bush and the Broadband Institute. We do a lot of work with remote Indigenous communities and telehealth. We're having trouble getting NDIS to provide services because we don't have any connectivity, but we're working on that. Can your Telstra home services deal with other languages, such as Indigenous languages?

JOHN CHAMBERS: We haven't customised it for Indigenous language as yet. But I'd love to talk with you about that. We work very closely with multiple Indigenous communities, and certainly within the NDIS space and our Telstra Health team very closely. But I'll be honest - Indigenous languages is a tougher one to get going. But we're very supportive of it growth.

JULIE McCROSSIN: Our last one...

>> Quickly, what type of internet connection to you node for Telstra Smart Homes?

JOHN CHAMBERS: Effect 11, it all works through a hub, which basically propagates a zigbee signal - it's a low power signal over the home which means you can use batteries rather than power for all the sensors. That hub connects via wi-fi. That can be any wi-fi signal. So you just need to be able to connect it to wi-fi. It's quite a low use. Obviously if you use the video cameras a lot, you can start to get a little bit of usage going. But most of the connectivity is almost negligible in terms of data use.

JULIE McCROSSIN: Ladies and gentlemen, would you give John a warm round of applause? Fascinating, thank you.

(APPLAUSE)

If the staff could open the doors, we'll get back on time by having a slightly shorter morning tea. We'll start properly at 11:00, with a lucky door prize draw for a Bluetooth, um, speaker. If you haven't got a lucky number, rush towards me. Thank you. It's time for the break.

(BREAK)