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ReSound Government Services: May 2026 Contract Updates

Presenter: Kara Sinner, MS, CCC-A, FAAA

Yes, thank you and welcome to everybody today. Today's course, Resound Government Services.

We're going to talk about the May 2026 contract updates. My name is Kara Sinner and as Melissa mentioned to you there, go ahead and use the Q and A to type in any questions as we go through. I'm going to try to keep an eye on it as we go through and take questions or for sure I'll look at it at the end to make sure that we can cover off on everything we need to if there's questions out there as we go through.

I am a content development training audiologist at Resound and I'm located in our new North American headquarters which is in Shakopee, Minnesota. Just got a new building and just moved there. So pretty exciting for us here at Resound.

As I go through here, the first thing we want to touch base on is the learning objectives for this course. So we want you to be able to list the hearing solutions that you have available in the Resound product portfolio. We're going to identify new research supporting patient benefits with Resound products and we're going to describe the new all fit dome design and the improvements associated with that.

So products on contract. This is just meant to give you a nice little overview. A lot of the stuff you're going to be familiar with, it's carried over from what you're previously been familiar with. So we still have our RIEs available in the Resound Vivia. That's going to be our top end with a rechargeable Micro Rie and that also includes a Micro RIE cross transmitter so you can do your cross fittings with that.

We also have two non rechargeable RRE styles in a 312 and 13 battery size. Our new super power BTE is called Resound Enzo I A. That's going to be our rechargeable newest version that we launched last November. If you're looking for custom hearing aids or other BTE standard power BTE options, you're going to find that still in the Resound Nexia family. Also we do still have RIE products associated in there, but in particular pointing out that when you want a custom solution or a BTE solution, you're going to look for at Resound Nexia.

For those our wireless accessory lineups, we have our newest accessories, the TV Streamer plus and the Multimic plus we have the remote control and then we have our previous generation TV streamer 2 still available. And then for those who maybe are looking for a non Rechargeable Super Power hearing solution. You can still have access to order that Resound ENSO Q. So that's the predecessor to the newest Resound ENSO ia. What's new going for with this May contract is that we have a brand new dome portfolio called All Fit Domes.

We're going to go over that and we have the newest version of our Resound Smart Fit software, which is the 2.3.

This is just a reminder that we do have, you know, seminars and training available kind of throughout the year. And you can always find that on our website. If you notice. We just closed up one here recently in Newport. But we do have some other opportunities that are available this coming summer into the fall.

So look there that gets updated as they add new things that you have some other training opportunities in person.

All right, so just to kind of kick us off, you know, why we do what we do, why do we make the changes to the hearing aids that we make? A lot of it comes from really the information that's out there, either from market track or from maybe interviews or study or, you know, surveys that we've done with end users out there. Just try to determine like what are the, the main things that challenge them. Where should we focus our attention as we're making changes and, and, and coming up with new products and technology? Where are the, the main areas that they think are important or where they face their biggest challenges.

So kind of based on that market track 2025 and, and some insights that we've gained through interviews with patients, they've indicated that they have these five kind of key areas that they want to hear people better in, people better. They don't want to hear the noise, they want to hear who's talking to them. They want to make it feel like they're normal, you know, hearing again, that they, they want it to be very natural. They want to may have it be invisible or transparent if possible. So size is always a major consideration there.

There's concerns sometimes of, you know, will there be battery life when I need it the most, is it going to last or am I going to have problems with that? And then also connectivity, being able to connect to different things in their world and be able to hear things clearly. So those are kind of the five major, major categories that they, they indicate as being challenges. So, you know, if we can kind of focus our attention when we, you know, know, make updates to products or introduce new products or things like that, you know, we can really try to solve some of these challenges or make things better. For our patients.

So when we look at these five folk areas, they kind of fall into kind of these five focus development areas for you know, putting our attention to hearing and noise. We want it to be listening comfort. So we want people to have very comfortable listening situations whether they're in quiet or they're in noise. We want to you know, pay attention to the size of the design and how it works and how, you know, what kind of features do they have, access to controls, things like that make it very usable. We want to make sure they have battery that lasts them all day and we want to give them connectivity options that they can choose from to meet the best needs to make their, you know, real world listening and being able to connect to different audio sources out there.

So you know, our portfolio is really based exactly around these five categories. This is where we focus a lot of our attention. So our hearing and noise. We want the best hearing solution for hearing and

noise. We're designed for the best listening comfort.

We have the smallest styles out there, we provide all day battery without compromise and we have all inclusive connectivity. So this is our most intelligent portfolio yet. And these things all apply, you know, to these different product families. So we have the Resound Vivia, we have Resound Enzo ia, we have Resound Nexia and then certainly the CROs solutions that go along with those product families.

So when we're talking about the world's best hearing and noise, some of the you know, studies that we have, we've done some things that have been internally done and most recently we've had some external validation by Hortense and Troom Oldenburg. They were the conducted studies looking at our product, looking at some other brands, products and found our Resound Vivia to be that top rated for speech, intelligibility and noise. We're going to look at that study, kind of go over what those results were with that they also you know, kind of leaning into that the best for speech on intelligibility into noise compared to other market leading DNN denoising hearing aids. So again a study that we'll look at going over that and then a focus on a study looking at low listening effort with intelligent focus. So there's a lot of white papers that are there as handouts that go into the details of these different studies that were conducted.

So we're going to kind of give like sort of a overview kind of like what was done, what were, what was found. But you certainly have those white papers to refer back to to get even more details on all of these different areas. So the first one that they validated for us, they were looking to look at how, you know, these different products, ours included performed for speech intelligibility and noise. And with this study, 20 participants were were evaluated and they had moderate sensorineural hearing loss. The participants were fitted with a pair of Resound Vivia hearing aids as well as hearing aids with DNN based features from three other premium brands.

The hearing aids were fitted with each brand's hearing aid program with DNN based feature. So it was all, you know, what can you do with each particular brand's hearing aids.

The testing was done in a very complex multi speaker setup that involved turn taking and interfering speech in the front. Alternating sentences spoken by one female speaker and two male speakers were used from the concurrent Oldenburg sentence or the CCOLSA test.

And they were presented with a defined overlap in time across speakers. So, so this is we had these three speakers in front, the female right in the front at 0 degrees and the male speakers off to either side. And then they represented these, these sentences and had to identify in particular like they were asked to identify like a last word of the sentence. So the female speaker again was presented from the front. The males were from plus or minus 22 and a half degrees.

And these sentences were presented at levels around 4dB more intense than the test participants individual speech reception threshold. Then also just to make this really a challenging test, of course, you know, besides the competing speech in the front which is very difficult in its own, there's also that Babel noise that was also coming from that front hemisphere presented at 45 degrees. So the testing included speech recognition for a single target speaker which is what we call the selective attention condition. And then for turn taking speakers which required the participant to have divided attention. And to assess the speech recognition for the selective attention, the participants were instructed to repeat the last word of each sentence for a fixed target speaker.

So when we say fixed we mean the location of the target speaker wasn't changed. So the participants knew where to focus their attention from where they were expecting that speech to be coming from. And then the investigator would announce the target speaker for the upcoming 20 sentences. So they knew where to focus for the next 20 sentences. And then after they were completed, then the next target speaker would be announced so then they could share shift their attention and focus.

They knew where to focus their attention again for this selective attention task. For the divided attention task, the target speaker was switched. There are switches and these switches included were triggered by a certain sentence. That sentence would start with a specific word. And that's how they were kind of, you know, triggered to know, oh, I gotta, you know, switch my attention to this other one.

They were, they were asked to listen for this specific word that would indicate that this was a new target speaker. And then kind of like that previous selective attention task, they had to identify the last word of each of the sentences, they had to repeat that last word. And the switches between who and where the target speakers came from that were very, you know, consistent. These happened every 15 to 25 seconds. So it was a very dedicated switch when that would happen.

So that's the, the test setup that they did here and the results. So when we look at these results, the left graph over here is showing scores in percentages for the different test conditions. And for Rezone Vivia and the other brands, the measured CCOL essay scores were higher for the selective attention task than the divided attention task across the board. And this is, you know, what we expected because it reflects the greater difficulty of the divided attention task where participants needed to switch their attention between the speakers during the testing. You know, if they, they knew where to look for the selective attention, it was a much easier task than that divided where they had to switch their focus.

So we anticipated that those results would be overall, compared to the divided attention task, participants achieved the highest score with the Resound Vivia on all of the tasks. So that was good news. We like to see that. And then on the right over here is just looking at those same results, but looking at it as a benefit in percent points with Resound Vivia relative to the three other hearing aids from the other brands. So in this right image, zero means that there's no difference in benefit between the other hearing aid and Resound Vivia.

And a positive result indicates a benefit was greater with ResoundVivia than the other hearing aid. So for the selective attention condition, there was a significant average benefit of 6.3% points against hearing aid 1, 4.8% points against hearing aid 2, and then the benefits for selective attention task for Hearing Aid 3, and the benefits for the divided attention task, we're not significantly different from zero. So if you can see on here the significance, when the word significance is indicated by the asterisks there. So, you know, what can we conclude from this? Well, we can conclude that intelligent focus in Resonvivia, it either meets or exceeds the industry benchmark for DNN based features for speech recognition on both the selective attention task or on the selective attention task, and it meets the industry benchmark for the divided attention task.

So we're either equal or, you know, performing better compared to maybe some of the other brands that use DNNs in their signal processing as well.

Only Resound and one other brand which is represented as hearing aid number one here, currently use dnns in the signal processing to achieve denoising. So in this test Resound was found to be significantly better than that hearing aid one, which is again a positive result.

So Resound denoising, meaning that really Resound denoising, our strategy for that is currently leading in terms of speech recognition and noise with that selective attention task. And it demonstrates a really strong performance that's either better or equivalent to the other solutions that are out there that use DNNs to automatically control noise management features. So that was again done by this external location horse and Troom Oldenburg. So it's always nice to get that external validation that your product is performing well out there for the users.

So what is our formula for hearing a noise? So our intelligent focus is what we call it and what it does is it combines the DNN denoising so that intelligent noise tracker with our narrowest four microphone beam former, which is the clear focus, and that's these combined together create intelligent focus,

allowing that patient to hear clearly and with less listening effort. So how did we train our dnn? So this is just a quick schematic we'll just kind of play here as I talk about it. You know, data gets fed into an input layer, it travels through the network and then there's these different nodes in between and each node in the layer is performing a calculation and then they.

This calculation is based on weighted input from a previous layer and basically it compares it to an output that is a target that we put in there. We say we want it, we expect this is our expected result. We want to compare all this inputs. If it doesn't meet that target, it calculates the error, it runs it through the whole system again, it adjusts the weights based on, you know, the nodes before it, those kinds of things. And it just repeats this process millions and millions and millions of times on this large amount of data that it gets trained on until it gets that expected output.

Very kind of a complex way to think about it. So, you know, had a colleague who kind of offered maybe just a different way to maybe simplify how we think about our DNN system. You know, that we know like traditional noise reduction systems, we still use traditional noise reduction systems. Those systems are rule based is what we call they're based on, they follow fixed rules to say, you know, when it meets this criteria, I'm going to reduce the noise this much. And it's like it just does based on this rule that's in place that an engineer just you know, implemented and said this is how it's going to work.

Well, with dnn, it's actually, you have to think about it more as the system, the DNN system is learning patterns from the data, right? It's learning about all this data that's put in. It's not following this fixed rule on what it should do. And what it does is it learns what noise looks like, it learns what speech looks like, it looks, learns what real environment sounds look like. And it allows the system to be able to adapt as it sees these things that it's learned in a very intelligent way instead of having to rely on some sort of rule that it's following.

So it's very, you know, can say hey, I've learned about this, this looks like this and then apply the right kind of, of noise reduction in that, in that situation. So our DNN input when we, we did our training included 13.5 million full sentences. Those were in multiple languages because we wanted to capture as much differences there as we could. They were presented with varied vocal effort. So what we mean by that is, you know, they were presented at a louder level, at a soft level just to again capture those nuances of different speech.

And then they were also, those sentences were embedded in different types of noise at varying signal to noise ratios. So again speech noise and speech by itself. And how are we identifying all those different things? So very a lot of complexity went into the training for it to be a real effective system. One thing to think about is that with resound that we are the only manufacturer that uses both our four microphone beam forming along with the DNN noise reduction at the same time in the same program.

So some, you know, brands might have four microphone beam forming, they might have DNN noise reduction. They're not using them at the same time in the same program. So they're kind of, you know, they might, if they're dnn, it's using maybe a more traditional form of directionality with that. Or if they're using their four mic beam forming, it's not using that DNN noise reduction system is what that means.

So intelligent focus, you know, incorporates again that dnn. It's our most advanced solution and it's designed to help the patients have that better one to one conversation and noise and unique with the way it works is that it's when that patient decides they need that additional help. There's research out there that shows, you know, that's going to be about 10% of the use time. So 90% of the time they're probably going to do really great in our automatic program. And then maybe 10% of the time they're like, oh, I just need a little extra help.

And that's when they're going to choo to activate this feature by going into switching into that hearin noise program by having Intelligent Focus as a separate program. That patient is always in control of

when they want to use this feature. So it improves that one to one conversation and noise. We did some initial testing when we first launched Resol and Vivia and the research showed that 89% of the participants preferred Intelligent Focus compared to our previous front focus. And then when compared to other leading brands with AI and four microphone beamforming techniques, we found a 64% preference for the Intelligent Focus.

And then again, just that reminder that our Intelligent Focus consists of both that four microphone beamformer which we call by itself we call clear focus and when you combine that with the DNN Intelligent Noise Tracker, those two items together we call Intelligent Focus. There might be a quiz question related to that. So now what's really great news is that we've had this research validated externally by again Hertz and Trum Oldenburg to look at in terms of low listening effort and the benefit that Intelligent Focus can provide in that area.

So this study was this again external validation of listening effort. It was conducted by Hertz, Androm Oldenburg and it used the adaptive categorical listening effort scaling or Cayley's test for this study. And this test asked participants to rate the perceived listening effort on a scale from 1 which was corresponding to no effort to 13 which was corresponding to very high effort. And the sentences were presented from the front at 0 degrees while the ISTS was presented at 70dB at 75 degrees. And then it was.

There are varying signal to noise ratios to include each category of listening effort.

So the results on that. So you can see in this figure the measured signal to noise ratio for the rating carry categories were no effort, medium effort and extreme effort for each brand Resound Vivia and then there were three other hearing aid brands. The no effort, the median measured SNR was about 8dB. For the medium effort it was minus 1dB and for the extreme effort it was around minus 10Db. Statistically the results for his own Vivia, 9 are equivalent to the results of the other hearing aid brands.

And one thing I want to point out is the purpose of this low listening effort study was to validate that wearing hearing aid solutions with advanced noise reduction results in low listening effort benefit. So that's kind of one of those big, you know, kind of a key thing out there that people talk about is this listening effort. And so we wanted to show, to say, hey, you know, if we use this noise reduction, does that help with this listening effort? And yes, indeed it does. And it was good to find that that really any of the brands, right, if any brands using this advanced noise reduction that we're all doing really good in in lowering that listening effort for our patients, just making it easier for them to be able to have more comfort in noise and listening in noise.

So in this case with this study, there were no significant differences between Resound and the other brands. So, you know, that's the good news is we're all doing a really good job with low listening effort in our products. So that was a nice finding. Okay, so this is just to review. Kind of our history of our our beamforming Options back in 2020 was when we first introduced our 4 microphone beamformer.

This was our first generation of a weighted binaural beam former that provided a for about a 4.3dB benefit. Then in 2022 we introduced our front Focus. That was our second generation. It was a higher resolution binaural beam former and we actually had a huge jump in signal to noise ratio benefit of 8.6 dB. Then with 2025 was when we introduced that third generation clear focus binaural beamformer.

And then what we did here with that was extend that directional response further into the low frequencies and we're able to squeak out an additional DB of benefit. Now you might think, oh, one db, but one db is huge when we're talking about signal to noise ratio benefit, it makes a huge difference. So any DBs above previous generations is going to be a huge impact for that patient listening. And then of course again, that intelligent focus uses Clear for your focus beamformer and it also adds in that DNN intelligent noise tracker.

So what does that look like in our hearing aids? So if we're looking at our automatic all around program, we call that 360 all around. This is where we apply the four microphone beamformer. It's automatically actually selecting between the different microphone modes. So it could be omnidirectional when it's quiet and then as things get noisy it turns on directionality and it's doing this automatically as based on how our environmental classifiers classifying the environments we use.

It's called a multi band approach. So in the low frequencies we have the omnidirectional processing and we keep those low frequency omnidirectional to maintain natural sound quality, to maintain the spatial awareness that occurs in those low frequencies and natural own voice as across all the different listening environments. So that as it's transitioning between omni and directional, it's very seamless that transition. There's no. The patient just has a very nice natural sound quality to the hearing.

Then we're applying that four microphone beamformer in that mid frequencies. That's where our binaural beamformer is. Because we want to maximize the signal to noise ratio. This is where most of those speech sounds are and that's where we want to focus that beam former. And then for our system in the high frequencies we use fixed directionality.

So above 5,000. And the reason we use that is because if you, if you're doing adaptive directionality in those real high frequencies, it can actually impact those interaural level difference cues that are out there in the highs. Using a fixed directionality system actually preserves that. So you have that better sound localization, you have that awareness even when you're in that directional mode by preserving those low frequency or those, sorry, those high frequency spatial cues.

Now with our third generation, that clear focus, if we look over here on the right, that's going to be found in our hearing noise program. And as we kind of mentioned earlier, what we do is we extend that beam former down all the way through the low frequencies and for that full kind of directional response. So removing the low frequency omnidirectional response means that we get less noise coming in from the

sides and behind the patient, which is going to reduce that overall noise and maximize the effective of the noise reduction strategy. And this is like really needed when noise gets really, really tough to hear in. Right.

So this is going to be that oh my automatic program, my 360 all around works great about 90%. You know, most of the time I never even have to adjust it. And then they have these some cases very, you know, situations where I could just use a little bit more. That's your hearing noise program. You go on there and you're going to get that just more, you know, targeted directionality.

You're going to lock it into that bi directional, you're going to extend that all the way through the lows to give you that best performance.

So with clear focus again, when we launched Resoundvivia, we had done some preference studies which found 61% of patients had experienced better hearing compared to legacy solutions, and 83% of patients had experienced better hearing and noise compared to other leading hearing solutions. So again, those are like kind of preference testing and they're really good numbers. But we know that signal to noise ratio improvement is incredibly an important thing to look at. And at the time of we launched, we had kind of predicted that with clear focus, we had the potential to provide 1-2 dB of additional signal to noise ratio benefit compared to our previous front focus. And we, this was based on previous investigation that we had done with the effect of our directional mix settings, which is where you, you change, you know how much omnidirectional versus directional processing you're getting.

You, you can adjust that in the fitting software and when you extend that directional processing into the lower frequencies that you have this additional benefit. So we had a goal with this newest study was to demonstrate the benefit of clear focus and show why it's good when it comes to reducing signal to noise ratio, improving signal to noise ratio compared to the previous form. And that's where what our findings were. We'll look at the study that we get a plus 13% and we'll talk about that improvement

compared to our previous. Okay, so this study, what we did was we compared speech recognition and noise for people fit with clear focus compared to the legacy front focus.

We had 20 participants with mild to moderate hearing loss. They were fitted with a pair of Resound Vivia 7 because that had the front focus. So that's, you guys have the top technology level, but we have, you know, different tiers, certainly commercially. So we were able to lock in that front focus using that and then a pair of Resound Vivian 9 that had the clear focus. And then we tested these both in the hearing noise program so we could lock in those features.

The only program difference, you know, that we tested here was whether it was using front focus, front focus or clear focus. So these participants completed a Dana Telly to speech and noise test. And this is the setup, as you can see on the screen here, where we had speech from the front and then we had noise from both sides and behind. And this is, you know, a really, really tough listening situation. So this is kind of meant to be reflect more of a real world.

Like it's not just speech from the, and noise from the back. We having noise kind of coming from all around. And more realistic to what they might experience in the real world when they're out there. And then the Dana Telly 2, it's a five word sentence test where the level of speech is manipulated to determine the speech reception threshold for 50% correct performance. So an SRT SNR score is what it is.

And so in this case, because it is an SRT type of test, the lower the DBSNR score, the better the performance. All right, so what are the results on this? So what we found for clear focus was 9.4 dB signal to noise ratio improvement compared to the 8.4 with the front focus. And again, remember, that lower score in this case, because it's an SRT test, is a better score. So kind of in line with what we had predicted when we first launched, we get about that 1dB signal to noise ratio improvement for clear focus versus our previous generation front focus, which again is huge.

And when you translate that, you know this actually because of the difficulty of the Dana Telly 2 speech material and the testing setup, that translates into a 13% signal to noise ratio, if you want to put it in terms of percentages that you can expect with Clear Focus.

All right, so kind of we did similar things I thought was worth mentioning when we had launched our super Power bt just to revisit some of the testing that was done with that. Again, you know, you know, RIE testing, that's one thing. Now you're in a super power category. That's a different type of testing. You probably can anticipate similar, but maybe slightly different results of what we can see there because of this.

It's a super power hearing aid. But again, we're using that Clear Focus with our Enzo IA product. And in this case what we found was an 8.3 dB signal to noise ratio improvement for people with severe to profound hearing loss compared to, in this case in omnidirectional mode. So we're comparing, how is that directional mode compared to an omni. So that's a huge percentage when we can give them this, this nice directional feature.

And you know, we, we did just, maybe worth mentioning, just kind of like the previous test too is that we, we test this on real individuals, right? These are people, we're fitting them with the, with the hearing aids. These were people with severe to prolonged hearing loss and performing these, these tests with them. We also did a little bit of preference testing with them and they had a 93% preference for hearing and noise with, with the Enzo IA and they preferred to listen to that Clear Focus Compared to previous and then a 2.7 dB signal to noise ratio improvement for people with severe to profound hearing loss compared to again legacy, our autoscope adaptive directionality. So when we think about 2.7 again this kind of goes back to that one DB.

Is that really that, you know, you know, big of a deal? 2.7 is that really that it is a big deal. You know, any DB of improvement you can provide in signal to noise ratio is going to be a huge difference for listeners and especially in this superpower category.

So our 360 all around gives industry leading access to sounds and better hearing with less effort. And we found a 90% preference for listening in our latest 360 all around versus our legacy products. So again, preference testing that we're heading down the right road. People are preferring to listen to in these, these latest solutions that use this for microphone beamformer and that how that's conducted with being able to offer that access to hearing around them as well as the better signal to noise ratio.

Just another summary slide there. Okay. And so environmental classifier. Touching on this, we did a study again to kind of evaluate our environmental classifier and found that it delivered 91% accuracy in being able to classify the environment correctly. And why is this important?

And so this is just want to touch on because we're talking about all these automatic features and all this directionality and all this automatic noise reduction and things like that. Well, the hearing aid has to be able to classify the environment correctly in order to make those right decisions. So having a classifier that does a really excellent job of saying yep, I know what environment I am, what that means is that it can apply the right directional microphone modes, the right amount of gain, the right amount of noise reduction based on whichever environment that patient happens to be in.

Feedback Again, another claim, World's best feedback management. Well, we did a test on it, right? We looked at our feedback system and in this case we, we did it kind of in a really challenging way because we used the superpower Enzo IA to do this study. So where feedback, feedback control is important for everyone, but it is certainly important for those people who have severe to profound hearing loss, right? So we kind of put ourselves in, did a real challenging test to say how does our DFS Ultra 3 manage feedback?

How does that compare to maybe some other systems out there in terms of being able to provide stable gain and as a result maybe trying to say hey, you know, we, it's important because we want you to be able to say I can fit this. Confidently, I know that I'm going to be able to prescribe the amount of gain I can, especially for these severe depending on profound hearing losses, but certainly for any patient. And that you can don't have to compromise, you don't have to reduce gain. It's going to take care of that feedback problem for you and give you the full amount of gain that the hearing instrument's supposed to provide. So again, in this, we found that we had 26dB of stable gain that we were able to achieve with Resound and Zoia.

So this was up to 6 decibels more compared to those other brands that were it was tested against.

All right, moving on to another one of those areas of focus is that the size and the design, we want to make sure that we're designing things in the smallest styles that we can. So we have the world's smallest AI hearing aid, which is going to be that Resound Vivia Microrist. Along with that is the smallest rechargeable CROS solution. And then also with our Resound Enzo ia, the smallest rechargeable superpower that's out there on the market today.

So we design things for comfort and size. Resound vivia microri is 6% smaller than the closest AI hearing aid on the market. And our DNN is actually implemented as a completely separate chip. So this is pretty amazing that we're able to keep this really, really small design and have a whole nother chip that we have in there just to run our dnn. We put our DNN in there.

Its only job is to run that, that deep neural network processing. And what we kind of refer to is it being a very efficient system, 17 times more efficient than other hearing aid solutions out there. And when we talk about efficiency, just to kind of explain that, is that we can achieve similar outcomes in user testing with RDNN in a much less complicated way. So it's much more efficient at doing the job and getting the

same type of output as you can with maybe other systems that are using more complexity in their systems to achieve that same level.

So even our Superpower, again, is small, 12% smaller than the competing rechargeable solutions that are out there. So again, you might not think, oh, they're super power, they're severe to profound, they're used to wearing, you know, the larger style hearing aid. Well, you know, if they can get something that's small, smaller and more comfortable and, and more organic to how it fits on the ear, you know, they're going to absolutely be interested in that type of product Viviva. So this is just going to go into now talk a little bit more details about the products themselves. So we have again that micro RRE which is the rechargeable and we have the standard RRE which are the battery operated.

So with these RRE standard RREs you're going to get that clear focus. So that four microphone narrow beam former and then with the rechargeable you get that four microphone beamformer, clear focus combined with the DNN noise tracker Intelligent noise tracker and then we call that Intelligent Focus. So when you see that in the software, that's the difference is if you see intelligent focus you know that it's using the DNN Intelligent Noise tracker. If it says clear focus it's going to be using the Noise Tracker 2 system. So it doesn't have the DNN.

We still use all the sure Fit 3 receivers. They all have auto detection. We have the Marie receiver. We have low power, medium power, high power and then ultra power options for all those receiver in the ear products. Just a little call out or shout out for Marie.

Again externally validated testing. If you have fit the Marie or if you're thinking about trying the Marie, there's lots of study information out there. We got lots of white papers and again now that it's, you know, we got some external validation to kind of conclude like yep, this is what they're finding as well. The 90% prefer Marie because it has a really natural sound quality, better sound localization, 31% more accurate and then after wearing it for a while increasing to a 57% lower wind noise because you

get that protection from it being within the ear with that microphone and then easier phone calls. So being able to just effortlessly put up the phone to the ear if you, if you choose not to stream phone calls, you can have really good performance just using the phone in a regular manner.

So again lots of white papers that we have out there on our website, you can peruse to get more details on Marie our Cross transmitter. So for Vivia we have the, it's a Micro Rie sorry style and that's going to work with any of the three RIE products. So even with the, the standard battery operated, you can use that micro RRE cross transmitter with the standard or with the, the Micro Rie rechargeable.

So another study we did was to evaluate when we first launched the Vivia Cross we had a lot of comments like oh, it's really quiet. It's really quiet. So what we did was did a study to Say, well, to kind of show, oh, why is it choir? You know, here's our, here's our, here's our white paper. And again that was included there, you can read more details about it, but that it is quiet compared to other cross solutions that are out there on, on the market.

So what we found was it being 10 decibels less noise compared to those other, some of the other products we tested. And the reason for it is because we use what's called a compander. So it's a compression and expansion technology. So that together equals compare companion and we call it a compounder. And what happens is when you're wearing a cross system, you have the environmental sound that comes in.

And whenever you transmit any kind of, and do any kind of ear to ear transmission of any kind of audio sound, there's an at certain amount of noise that gets added in. So when we're, we have this environmental sound coming in, we're doing ear to ear transfer, we get this added noise that comes in and that adds to that environmental sound that we're transmitting over. Well, this sound can be quite large. So what we do is that in our command compander is that we do a compression on the signal and as it goes through the processing and then on the back side as it comes out, what we do is we expand

the environmental sound again. So as a result, at the end of the day, what that does is it keeps that transmitted noise lower because we've compressed it down and then we're expanding up that environmental sound that you want them to receive at the hearing aid side so they get this nice audio sound transmitted over with a lower amount of noise.

Again, white paper has lots of details to kind of go over that. But when we wanted to look at this and test this, what we did was we used a EIN methodology to test this. So a methodology we didn't do EIN testing because that's at reference test gain. So instead we kind of used the same type of setup where we programmed or measured the hearing AIDS programmed at 10dB flat gain. Then we use this methodology to isolate the noise in the receiver of the hearing aid of the CROs.

And when you do this equivalent input noise testing, what you're doing is you're measuring the output and subtracting the amount of gain in the hearing aids. So what you have left is this indication of how much noise is being generated within the hearing aid itself. And we did this in third octave bands to show how it looks across the frequencies. And in this image showing the results Resound is the light blue bars. And then we did it against two other brands.

Brand A is the dark blue. Brand B is the green bars. And what the results show is that it's pretty common to have too much noise in a cross receiving hearing aid. And then what it also shows is that on average, the Resound CROs system was about 10 decibels lower than the other brands that were tested. So why is that important?

Well, because we want to deliver a signal that has the least amount of noise. So brand a was about 20dB, brand D was about 19dB of noise on average, and we were around 10. So being able to deliver that less noise is going to just give that patient a good listening experience.

All right, so these products are available in 10 different colors. That's going to be true for Enzo IA, it's going to be true for Resound Vivia. And they're all weatherproofed. They are IP68 rated. We use nano coating for the receivers on the RIE hearing aids.

Those are also nano coated, so they're fully protected for Resound Nexia. Like I said, this is where you're going to find your custom lineup of products. Those the customs are going to be available in six faceplate colors. And you have the red and blue shell options, RIEs and BTEs, those are going to be available in this color palette down here. So you have the eight colors that you can choose from in that.

All right. All of our Resound Vivia, Enzo Ia and even Nexia now have replaceable microphone filters. So that makes it nice and easy for you guys to do that replacement in the field when you need that. So that's a nice improvement for those products. And now our All Fit domes getting to these.

This is our new dome portfolio. We have introduced more sizes in five different styles. We did some testing. It was based on 16,000 real ear impressions, or we looked at 16,000 real ear impressions to determine, you know, what types of dome options do we need, how many sizes of each do we need? So these are all designed to fit 97% of the ears that are out there.

We have 19 domes across the five styles. So 19 domes in total. We have added wax protection loop that's to the end of each one. You see the little loop there, the thickness of these domes. It's got a thicker.

It's the same dome silicone material that we've always used, but it's a thicker. So it's just really nice and durable. We have some improved bass response for the open fit style.

And we have the new sleeve dome which is the custom like. It's a custom like fit and we've actually optimized that style. So if you are fitting the Marie receiver, that would be a great option to choose for

Marie. It provides about 20dB of max stable gain compared to legacy domes.

So the open dome we talked about has that improved bass response. So, so more base below 2005 decibels below 1000 Hz, 2 1/2 db softer peak around 2 1/2 Hz. We have again in five sizes. So there's new sizes compared to the previous generation domes. The Tulip, we've introduced another size.

So we now have small and medium. The sleeve dome is available in three sizes, small, medium, large. The vented dome, we've renamed it. This was previously what we called the closed dome which was kind of a misnomer because it wasn't a closed fitting. So we now call that vented.

In the offit dome portfolio, that's going to be available in five sizes. And then we have the power dome available in four sizes.

This just gives you a quick look at, you know, the fitting range kind of for these different domes. Just kind of quickly go through there. Of course the power. When you need more low frequency gain, it's going to be a good choice to go to Battery life. So rechargeable.

We have premium charger and this has a lithium ion battery in it that holds up to three charges. So you have some on to go char on the go charging capability. If you don't have have access to power. We have a desk pack charger. This has to be connected to power.

And then we have the custom charger for the custom hearing aids. These inserts are custom made from the impression as well. So you have that perfect fit.

All of the chargers provide maximum of 30 hours. And then of course if you're doing streaming or dnx, DNN is active for a couple hours. You could expect about 24 hours and then 50% streaming and DNN active about 20 hours. So yep, when we stream, when we use DNN it takes a little bit more from the

battery. But 20 hours, that's still a nice full day of battery life that they can expect.

So you know reasons to choose that rechargeability, right. We have reliable power that full day use on a single charge, even when you stream, it's easy to use. Eliminates the need to handling those small batteries or battery doors. So really a good solution for people with dexterity issues. Peace of mind.

I think people sometimes forget if they're using the Resound Smart 3D app, they can check that battery status under the status area in that app to show how much battery life they have left. And then fast charging. Certainly if you, oh, I forgot to charge them last night, you can throw them in that charger and do a quick charge to get a boost in battery when you need it. This is a nice little overview. So on the packaging we indicate there's a charger number that coincides with the charger, that number that's inscribed inside the charging bay.

So you can kind of match those things up. But this is a nice overview, especially when you start getting many different generations of product. What charger goes with what? One thing to point out here is desktop chargers for BTE products. Those are only available for BTE products.

Premium charger, you can get in a or sorry, raes, you can get in a premium charger or a desktop charger. And then the custom, of course is for the custom connectivity. We talk about oracast and Bluetooth, Bluetooth LE Audio. So we've been talking about this for some time now we have oracast worth mentioning is coming to lots more places around the world, lots more places in the United States that are starting to implement this ORACAST technology. So with any of the resound hearing aids, Resound Nexia and later, your patients can find those broadcasts using the 3D app and connect to them and have that nice listening experience.

Connected listening experience. You can always go on the Bluetooth website. They have a listing of different locations that have this that are installed. So we did another study looking at oracast with

comparing it to Teleloop preference study. And I want to quickly go over that.

So we had 18. We use both hearing impaired and normal hearing participants because we wanted to see how even normal people felt about oracast versus Teleloope. Because again, oracast is not just for people with hearing aids, but, you know, people with wireless earbuds or wireless headphones or those sorts of things. And they had to listen to five sound samples. It was in this kind of meeting setup where they had we had the loop installed and we had the Oracast system installed.

They were both through a laptop connected to a sound card and then they can it was controlled by the Smart3D app to choose which one they were listening to. There were five sound samples. A male speech, female speech, instrumental music, music with male single singer and music with female singer. And the results showed an overall preference for 76% for Oracast versus 24% with the Teleloope and pretty consistent across all the different speech samples that oracast was preferred. And this shows some different sound quality ratings.

Results again showing that oracast outperformed the tele loop. An overall speech perception rating showing again oracast outperforming the teleloop system. And then we also just asked people kind of like to describe, you know, you know, why, what they thought when they preferred Orcas. Why did they. So these word clouds just mentioned some of the word wording that was used by the participants.

You know, for oracast it was clear, it was pleasant, it was stereo, you know, versus the tele loop being flat or, or lacks, you know, voice quality, mono, those kind of different things. So the bigger the word is, the more often they said it is how kind of a word cloud works. So. So this was a nice study just to confirm like orcas. Yep.

Is that preferred mode of receiving that signal compared to a telecoil loop.

All right, so we have again or cast for all. And we have that nice oracast assistant in the app that allows patients to be able to easily select those oracast streams if they can locate them in their public places. We also have Multi Connect that's available for Resound Vivia or Resound Enzo IA and that allows two smart devices to simultaneously connect for uninterrupted streaming. So kind of can use maybe they're connected streaming something from their computer, they get a phone call, they can easily switch over to the phone call and then switch back to the computer. So that Multi Connect allows for that to happen.

And then we have the Multi Mic plus and TV streamer plus again using that Bluetooth low energy audio for that streaming experience can be about 82ft away. With those Oracast assistant, we're the first Oracast assistant to be out there. All they need to do is tap one of the oracast streams in the app to be able to select it. So it's a nice easy interface. It's available for all iOS and Android users.

And they you'll find the Oracast streams will be in a list and then they can also, if they're using a multi mic or a TV streamer plus for their personal use, they can activate what's called a public Oracast broadcast. They could turn that on so that other people who have that technology can find the stream and connect to it. Or they can also add a password if they want to keep it a little bit more private.

This is just where you find it. It's under the More the oracast assistant to turn it on. This is where they will tap to find a broadcast and then it looks a little different. So if you don't have any wireless accessories like a multi mic or a TV streamer plus, it'll say find a broadcast. If you have one wireless accessory, you'll see where they have to hit search instead.

And then if you have multiple, they would have to say see all devices. And then you can search and tap on whichever one you want.

Just a little bit on apps to remind you resound smart 3D app is the one that you're going to use for all of our latest technology. And then just call out for the Resound Relief app, which, which is an app that

really you can use with any kind of wireless streaming device. But it does stream directly to our hearing aids. Allows users to kind of set up their own sounds and sounds, we call them soundscapes, to be able to use if they're trying to manage, get some extra help for their. For tinnitus.

We talked about that already. So Multi M plus and TV Streamer plus, again, these are our newest accessories. They have what we call one touch pairing. So you all you have to do is put the hearing aids near the accessory and hit the pairing button and they'll pair up. They also have auto streaming capability, so you can turn this on or off, which would mean when the accessory turns on, it will automatically stream to the hearing aids or they can choose to tap either way and then they can adjust all that in the Resound Smart 3D app.

This is where it looks like in the app where you'll see auto streaming. It's going to be under my resound and they can tap that on or off per accessory. Or you can also configure that in the fitting software. You can choose to activate it or, sorry, deactivate it. So it's not auto streaming or with the check mark, it would be auto streaming.

Now, the Multi Mic by default, Multi Mic plus by default, has the auto streaming activated and TV streamer, it's not activated, so you'd have to go in there and make that change.

All right, all right, on to software real quick. I know we're kind of running out of time, but some improvements in the fitting software here. You now have the ability to choose previous audiograms to select if you had to go back to a previous audiogram for some reason. You can select that both in the connection flow or in the patient profile area. So that's one improvement.

You'll see autoream if you do any kind of autoream in your practice, there's a new option to choose the rear which is aligning with best practice. So it used to be reag. We replaced it with the rear in that autoram feature and you'll find that under the measurement view.

Firmware updates this is going to now allow you to update a firmware of the hearing aid as part of the connection flow. So you're going to be able to do that as you're prompted. It'll say, hey, there's something that you can update here and you can choose to update with as you go through.

If you skip, this is good to know a binaural fitting. If you skip, the hearing aids need to be using the same firmware. So if you had one that was at a newer firmware than the other, you can choose to skip it. However, you will be in simulation. So both firmwares of both hearing instruments have to match in order to be connected.

Is I guess the take home message there. Just to be aware of physical properties, we have now added a search. So you can choose to search for domes or ear molds separately. And there's also the new all Fit domes that are being added to the physical properties and the all fit dome. Since that's the newest portfolio.

That's where you're going to see any kind of recommendation ribbon appear.

World's first software with NAL NL3 so NAL has introduced their new fitting algorithm. It's called NAL NL3. There's a little link down here I can point you to that. You can go view more right from them about all the ins and outs of this new prescription. But basically they've updated the core prescription.

They've improved fitting targets kind of across all audiograms, but in particular challenging configurations. You're going to see some big changes for reverse slope and mix losses audiograms. What does this mean for resound? Well, it means that you can select this target rule in our fitting software. So per patient you can do it under prescribed first fit, you'll see it there.

Another way to access it would be under the fitting target rule. You'll see you could select it. So that's on a per patient basis. If you want to use this all the time or want to use whichever one, know that you can go to the preferences and then the machine preferences and you set the NAL as a default there. You have to close out the fitting software relaunch to have that take effect.

But know that then for every fitting you would be using that one. So if that's what you prefer to do, you can do that there. All right, shout out real quick. We have that veteran assistance for pairing connecting any kind of, you know, troubleshooting support Monday through Friday. If they have questions on, you know, audiological related that team will refer them back to you.

But this makes it nice and easy to help support all those connectivity things that patients might be experiencing and then again resources out there that you can look to for more information from us.

All right, so with that I'm sorry I went a little bit over. I don't see any questions out there but here's just a reminder. Our phone number, our website, there's lots of information out there. Reach out to the team. They always like to hear from you and are so helpful whenever you have any kind of questions.

So thank you for your time today. Thanks for sticking with me. Have a great day.