

**RUSS ELING (GM) | 1:57 AM**

Hi, this is Russ from general motors

**RUSS ELING (GM) | 2:14 AM**

Okay, great. Okay, thanks for having me everyone appreciate it, Shane asked me if I would, uh, be this this week or this month guest speaker as happy to do that appreciate the opportunity. Um, so I am the open-source compliance officer at general motors. I've got a just over twenty years and engineering at GM started the open-source program at GM of the one person show, uh, back in twenty fourteen. So that was challenging in a way, um, coming up with new processes and policies and requirements, um, within an existing mature organization and of course, across the globe, so myself and my team we're responsible for all use of software that goes into any GM vehicle globally. Um, we've got a fully staffed team currently working on in vehicle open-source compliance.

**RUSS ELING (GM) | 2:15 AM**

Uh, I'm involved with all of the emanate and joint venture activity, that includes any software. Um, we have all to a draft and negotiate a master open source agreement with our JP partners in China and we were told that was among the first of its kind within automotive. Um, and then I tried to stay active in the open source compliance community.

**RUSS ELING (GM) | 2:16 AM**

Okay, thank you. Uh, so we're, an American multinational automotive manufacture. Uh, we've been pushing the limits of transportation for a long time. We're headquartered in Detroit's, uh, the office that I might currently is just outside of Detroit in more in Michigan. Uh, we've got over a hundred and eighty thousand people, uh, we serve six confidence and, uh, collectively we speak seventy languages next light plates.

**RUSS ELING (GM) | 2:16 AM**

Uh, so you some software and the vehicle has increased exponentially, uh, the next slide it'll show you just too much, it's grown don't go there yet though. So we almost never received source code from our vendors and this is consistent across the automotive industry. Um, so accurate bond management is very challenging. Another challenge education within and outside the company regarding open source. Open source is not always well understood when dealing with our vendors.

**RUSS ELING (GM) | 2:17 AM**

Our supply chain spans over eighteen thousand businesses around the world. Uh, this number is not really uncommon across the auto industry. Um, another challenge is striving for compliance and awareness, within the supply chain without adding more complexity and burdens to her already burdened supplier relationships I'm very Asian across all the m's with the open source policies. Um, can cause a lot of parties and headache.

**RUSS ELING (GM) | 2:18 AM**

uh, so the slight is a probably a few years old by now. Uh, but it's good for illustrating just how much software is in the average vehicle because a lot of people just don't know, uh, so this would be, uh, how much is offering the vehicle compared to other software intensive, uh, products and services? Um, I happened to be talking about the slide, uh, with one of our vendors a few weeks back, uh, and he mentioned that just the device his company was providing to us at GM was likely close to around a hundred million lines of code on its own. Uh, so they're still another thirty or forty devices or easy use electronic control units are in the vehicle in a given vehicle on top of that. So again, if you go back to the number of suppliers we have considered the amount of software goes. Uh, I think it's clear that are open chain is an

important opportunity for the automotive industry or any industry with a software supply chain.

**RUSS ELING (GM) | 2:19 AM**

So, Jim was among the first not probably not the first was among the first automakers' to create an integrated and dedicated open source compliance organization. Uh, mentioned we have a team of experts within the company we're all focused on the compliant use the open source in our vehicles. Uh, so we developed a a global open-source governance structure, uh, that empowers developers and promotes collaboration.

**RUSS ELING (GM) | 2:19 AM**

Um, so we built in or are organized decentralized team to manage open-source compliance. I found this to be really effective, uh, especially when dealing with the multiple development centers across the globe. Um, and then of course, we collaborate with others regarding open source compliance.

**RUSS ELING (GM) | 2:20 AM**

So, for benefits that we have a better understanding of what open source, uh, as being used within the company, uh, this is, is taken becoming somewhat of an evangelist of open source. Both within and outside the company, um, we have better confidence in our open source compliance posture. Uh, and then it promotes the complaint use of open-source across the automotive supply chain. Uh, and then it also results in a reduction of risk. Excellent place.

**RUSS ELING (GM) | 2:20 AM**

all right, well, thank you for your time. Appreciate it. Um, please feel to reach out with any questions. I'm always happy to help, if you have any questions and that's all. Okay,

**CATHARINA MARACKE | 2:21 AM**

Great, thank you very much. Any question in towards comments on us.

**SAMI (ARM) | 2:21 AM**

Yeah, mostly time as founded for ma'am. Uh, I do have a question for you. Um, you said you have a team of, um, uh, and I mean that is not a, not unusual most of us who are involved in open-source office, uh, type activity. We only know that he's heavily on the results. So I'm just curious, uh, with the, with the team of ten that you have all the, what, what is the make as many of them all developers how many of a legal, a tight folks how many people on a business type.

**RUSS ELING (GM) | 2:21 AM**

Um, so we're actually supported by the legal staff so that the function, the open-source function resides with an engineering at a G.. Um, uh, so we're supported by a couple of people in legal staff. So I didn't even count them in the, in the head count, um, from a business perspective. Uh, I've got a project and program manager. Um, and then I, I handle most of the, uh, the strategy and implementation side.

**SAMI (ARM) | 2:22 AM**

Okay, I, I mean, I think that yeah, that's very interesting, uh, instead of within all the spoken about this, uh, before, um, uh, we have a, um, a member of full time stuff. I'm not open source of face and, and the twenty five people who are volunteer from trust organize Asian with varying hats including a legal. So it's interesting, um, to, to see how other organizations have chosen to, to, to organize that bad, open-source office function.

**RUSS ELING (GM) | 2:22 AM**

So we, we tried the, uh, the functional method before, where you have a, a number of people who are volunteer or becomes their second third fourth. Had that they're wearing, um, I didn't find it to be especially affective at the pace we had to go, um, and as well as

making it a mandatory throughout, uh, uh, our sourcing and development process it was, it was a little more difficult to, to gather everybody to make those decisions. So that's why I made the decision to go to more of a centralized team, uh, just laser focused on the envy a goal, uh, open source software usage and, um,

**RUSS ELING (GM) | 2:23 AM**

You know, a big streamline, robust, uh, uh, and thorough, um, requirements and, and processes are in place to, uh, to catch as much as possible with the, with the limited staff we have as you mentioned it's a at this isn't unusual that we are largely understaffed in this space but, um, you know, certainly certainly, it's, it's growing and I mean we're in, this is growing and, uh, we hope to have additional growth, uh, next year as well.

**SAMI (ARM) | 2:24 AM**

Good, thank you. Oh, you can be at the, I'm open to compliance in Japan in December.

**RUSS ELING (GM) | 2:24 AM**

Uh, I wish, um, so anybody who's familiar with automotive? Um, would likely know that, uh, budgets tend to dry up, uh, towards the end of the third quarter going into the fourth quarter. So, in my experience, travel is a near non-existent in the fourth quarter. So I will not be joining.

**SAMI (ARM) | 2:24 AM**

I'm sure there will be a little pertains to meet in queue.

**RUSS ELING (GM) | 2:24 AM**

Yeah, hopefully, yeah, and if you have any questions again, please please reach out and, uh, I'm happy to have a telephone conversation some time if you'd like.

**SAMI (ARM) | 2:25 AM**

Thank you.

**CATHARINA MARACKE | 2:25 AM**

Great, any questions.

**ALEXIOS ZAVRAS | 2:25 AM**

Goofy during open source compliance. Do you have a separate process for third party proprietary compliance.

**RUSS ELING (GM) | 2:25 AM**

Um, so that would go through our, uh, our purchasing department if we were if

**ALEXIOS ZAVRAS | 2:25 AM**

Okay,

**RUSS ELING (GM) | 2:25 AM**

my team was ever brought up for that, it would be to look at any open source usage resulting from that third party software.

**ALEXIOS ZAVRAS | 2:25 AM**

Okay, alright, so you're focusing on the, on the open-source. Okay,

**RUSS ELING (GM) | 2:25 AM**

Correct? Yup, do take appropriate, we do have some oversight on some of the third party agreements. Uh, so we do if, if there's anything involving software. I usually take a look at the contract, uh, and we

**ALEXIOS ZAVRAS | 2:26 AM**

Okay,

**CATHARINA MARACKE | 2:26 AM**

Um, yeah, you mentioned education in the company and then also raising awareness and the supply chain as one of the two or two of the, you know many challenges. I was wondering if you can talk a little bit about how you dealt with these challenges and then of course, um,

in particular with the problem of awareness ended. So can I change, um, what, what are you, what is your experience? I mean now you obviously joining open chain so that's one price but in the past, what was your experience? How did you handle that.

**RUSS ELING (GM) | 2:26 AM**

Um, so within the company, uh, I found it especially effective to, to get a couple of key executives aware of the issue in a, in a great way to make them aware of the issue with tell them about the potential risks. So I'd mentioned some of the, uh, the known open-source lawsuits that had already taken place. Um, you know, the common ones, everyone always sites, um, and they got it right away, uh, but what their support they were able to put me in touch with other a senior leadership senior executives are and happy go speak at their staff meetings.

**RUSS ELING (GM) | 2:27 AM**

And it was already set up for me that what this guy has to say, you know, as as it was, just a simple engineer. What this guy has to say is really important and you should pay attention and, uh, I was able to get really broad awareness like that and even for traveling globally, uh, I traveled to every engineering center we have around the world several times, uh, every year, uh, but it's because of that executive support that I had, I think that, uh, that would, that allow me to get that that broad coverage of word of mouth and that, uh, evangelism, if you will or the open-source.

**RUSS ELING (GM) | 2:28 AM**

Uh, within the supply chain, I find that, companies that we're doing more business with I try and find out who they're open source person is. And then see if I can schedule a meeting with them that we can kind of go over some of the sticking points of our requirements or

where they might be struggling or how I could help them in general with a a their compliance efforts.

**CATHARINA MARACKE | 2:28 AM**

Great, thank you. Any other final questions comments.

**MARK GISI | 2:28 AM**

Um, one question about, um, where do you see open chain's future whether internally or for your supplier.

**RUSS ELING (GM) | 2:28 AM**

Or is that mark.

**RUSS ELING (GM) | 2:28 AM**

Yeah, um, so I can't speak on behalf of our suppliers. I mean, I can, I can discuss it. I can't force them to do anything but, uh, certainly I can discuss it with them and let them know. I mean, it depends on the state of maturity as well if they're just trying to figure out what is this open-source thing.

**MARK GISI | 2:29 AM**

See, I'm on the phone with a little bit about the suppliers I understand you guys have a very, very sophisticated, very complex, very large supply chain, probably one of the most complicated. Um, I understand you can't just go into some of these vendors and say, Oh, we need to be open chain. I guess the we're hoping from a the show perspective some of the main manufacturers will start to.

**MARK GISI | 2:30 AM**

You know emphasize some major players within their smaller supply chain can actually instant that people you know, their, their suppliers be open chain or start to down that path or at least ask, how long? How far along are you? Um, what do you think from the automotive perspective more in generally in general not just GM. I understand it's really hard for anyone company to deal with it in and demand it but



what do you think the, um, we can we work, we do working with the automotive industry. She tried to, I guess educated influence them because it's such a great, you know place to try to become you know, relevant in.

**RUSS ELING (GM) | 2:31 AM**

Yeah, agreed great. I, I think there's a lot of opportunity obviously within the, uh, the automotive supply chain, I don't see, we, I'm driving this to suppliers, I think this, this would be have to be more of a connections based thing, um, you know, certainly, I'm, I'm dealing with tons of a tier ones and other vendors to GM.

**MARK GISI | 2:32 AM**

Okay, great. Thanks. We, we look forward to them all the potential there. Yup, for sure.

**RUSS ELING (GM) | 2:32 AM**

Mark, if you wanna, if you want to touch base after certainly a we can like I'm I'm open to exploring it further.

**MARK GISI | 2:32 AM**

Yeah, no, I think it'd be a worthwhile discussion and, um, we should think about a coupon because, um, again I think this is such a great thing to see Jim here, um, to, to others I think that's huge for open change over for very appreciative of the factors. Hey guys, uh, present.

**RUSS ELING (GM) | 2:32 AM**

Lead to be here. Yeah, thanks for the imitation and inclined to be here.

**CATHARINA MARACKE | 2:32 AM**

Great, yes rough. I think everyone is looking forward to having you involved, um, any other final questions.

**MAX GNIPPING (FOSSID) | 2:32 AM**

Hey, rough, um, I work a lot with the emanation divestment. Hey, I'm usually ask the third party in the whole process. Um, I was just wondering if you have any particular a process in place or anything that helps you deal with us because we notice a lot of it.

**MAX GNIPPING (FOSSID) | 2:33 AM**

Um, companies that are more mature and props of process and paste them know what they're doing. Um, are usually much easier to work with, in this them having to support finding the lost code basis or, uh, getting questions in the last minute. I was just wondering you see how the name and the process is like us and if you think there's something that the, um, open chain project can support with having a civic, a training materials or help for companies that are for specific or emanate your development scenario.

**RUSS ELING (GM) | 2:33 AM**

That's that's a good point and I'm sorry I didn't catch your name.

**MAX GNIPPING (FOSSID) | 2:34 AM**

This is a Max from FOSSID.

**RUSS ELING (GM) | 2:34 AM**

Max, okay, hi, Max, nice to meet you, um, so, yeah, you, you bring up a good point and, uh, I do have, a mental list I go through. Um, I, I just, I go off the top of my head now I've done it enough times but, uh, there was kind of like a quick you could ask ten questions and make a pretty quick assessment of where, uh, where one of the companies was at? I mean, we've, I've had to deal with companies of all sizes but we've uh, uh, purchased along the way I'm still small sensor companies to you know, obviously large, autonomy striving companies and, and just like you said everyone's had varying states of maturity, um,

**RUSS ELING (GM) | 2:34 AM**

I have a process and some questions and, and, and, you know similar I as I mentioned, uh, mark if you want to schedule a discussion. I'm I'm happy to chat with you about it.

**MAX GNIPPING (FOSSID) | 2:35 AM**

Sounds great. Thank you.

**CATHARINA MARACKE | 2:35 AM**

Great and any other questions, any other business that should be discussed today and this call.

**CATHARINA MARACKE | 2:35 AM**

Okay, sounds we all on the same page. Um, I think we can close this call early which is good because I already remember that we have had some, uh, cause when we went over time so, um, unless there's anyone objecting I would close the call and now on behalf of Shane and wish everyone a nice day or night evening.