A One-on-One Interview with Fred Mau, Intellectual Property Counsel, Toyota Motor North America

Q: WHY DID TOYOTA JOIN OIN?

A: First and foremost, Toyota was way ahead of the curve with the Research & Development (R&D) activities we were doing. Very early on we recognized the benefits to Open Source Software (OSS) – you can save costs, promote efficiencies, and develop a lot of source code. Our vehicles are becoming more and more like computers on wheels. Through OIN, we are able to identify risks areas and collaboratively come up with solutions that benefit us and the industry as a whole. This was a really big “selling” point for Toyota to join OIN. Secondly, it’s also important for us to continue to be involved as a primary member in the Open Source community. We’re doing more R&D with respect to software and OSS is a primary component of that. We have a duty to not only use OSS, but to contribute to the community as well. That means taking our role to preserve the impact and benefits of OSS for all.

Q: WHAT ARE THE MAIN BENEFITS TOYOTA SEES AS A MEMBER OF OIN?

A: There are a number of threatenors in the industry, especially with respect to Open Source. By helping to identify them and seeing some ways to mitigate and even remove risks in these areas, it really helps us to drive initiatives. Automotive Grade Linux (AGL) is very important for us. OIN was a big help in moving that forward, getting it in a number of our vehicle platforms and also helping to gain wide acceptance by the industry.

Toyota realizes there’s always going to be a number of issues that arise. It’s always much easier, especially with a platform as big as OSS, to have more members involved so we can bounce ideas off each other – come together to bring solutions that touch on all aspects of the auto industry.

AGL is an important one but I can tell you there are going to be a number of other initiatives coming as well.

Q: THE AUTOMOTIVE INDUSTRY’S SUPPLY CHAIN IS UNIQUE. WHY SHOULD COMPANIES JOIN OIN IF THEY ONLY MAKE COMPONENTS THAT DON’T INCORPORATE OPEN SOURCE?

A: Toyota has a huge supply chain and we’re only as strong as those that we work with. We need a very strong collaboration between not only Toyota but all size companies need to come together because software is becoming a more and more important aspect of all our vehicle platforms. There’s a significant amount of OSS involved.

A lot of other initiatives are downstream and more are going to be coming soon, such as RISC-V and Open Source Hardware. How is that going to be handled? There’s a lot of issues that are out there for us to discuss and it’s really a culture.

It’s not really a group of companies coming together to promote Open Source, but it’s showing that everybody is buying into the culture and becoming part of it. There really is no cost to join [OIN], so it seems to be a win-win situation for all.