



Cedalo Finds New Opportunities and Technology Partners in the Eclipse IoT Ecosystem

Case Study





Eclipse Foundation Members Naturally Connect and Collaborate

Just a few months after Cedalo joined the Eclipse Foundation in October 2019, the company's Co-Founder and CEO, Philipp Struss, joined Kilton Hopkins, his counterpart at Edgeworx, Inc., in a video presentation to explain the benefits of integrating their respective Eclipse Foundation projects. The two companies discovered one another, and the potential to combine their technologies, through their involvement in Eclipse IoT.

"The opportunity to showcase how the technologies Cedalo works on — Eclipse Streamsheets and Eclipse Mosquitto — can be securely deployed at the network edge using the Eclipse ioFog software that Edgeworx donated was great for us," says Struss. "We would not be able to build these kinds of connections and relationships with other companies if we were not members of the Eclipse Foundation."

Proven Project Success Highlights New Opportunities

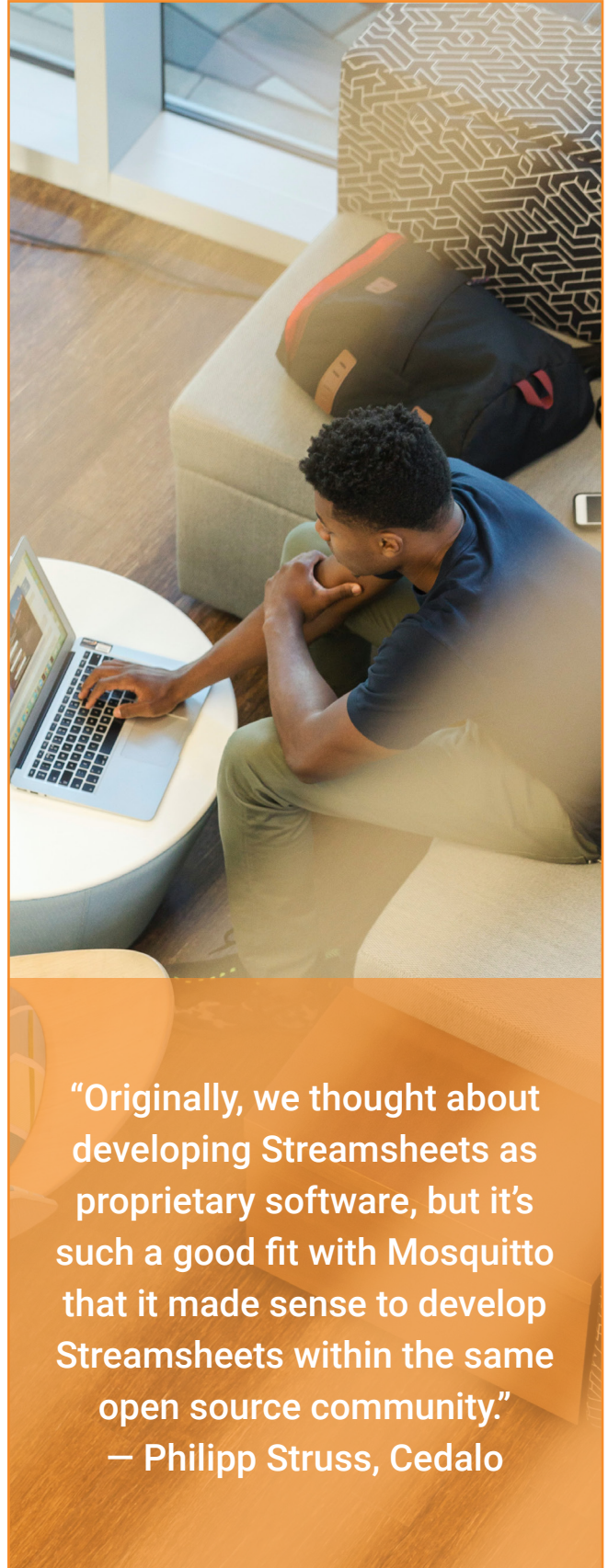
Cedalo took a closer look at the Eclipse Foundation when they started to sponsor an Eclipse Foundation project and an active project committer joined the company.

Roger Light is the creator, project lead, and driving force behind Eclipse Mosquitto, which has been hosted at the Eclipse Foundation for several years and is used by thousands of companies. "When

Roger joined Cedalo, that brought the Mosquitto technology even closer to our business and gave the project more resources to evolve,” says Struss. “Originally, we thought about developing Streamsheets as proprietary software, but it’s such a good fit with Mosquitto that it made sense to develop Streamsheets within the same open source community.”

Providing Streamsheets as open source software means Mosquitto users are not confronted with software that works in a different way and has different licensing. “It makes much more sense, and is much more convenient for end users if the two technologies are offered in the same way,” explains Struss. “On the business side, it also makes sense because in many cases, it’s natural for people to use Streamsheets and Mosquitto in combination because the two technologies work so well together.”

Eclipse Mosquitto is an [MQTT](#) protocol broker that allows sensors, devices, and apps to be connected in a far more flexible way than the request and response communication pattern used in traditional client/server architectures. With Eclipse Streamsheets, non-programmers can use their existing spreadsheet knowledge and experience to create stream processing applications.



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Eclipse IoT Is a “No-Brainer” Decision

Cedalo’s decision to contribute Streamsheets to the Eclipse Foundation and become a member goes well beyond the software’s compatibility with Eclipse Mosquitto. “It also made sense to contribute Streamsheets because the Eclipse Foundation has a great focus on IoT,” says Struss. “Both Cedalo technologies are deeply rooted and have their main applications in industrial IoT and related areas, such as smart mobility, smart cities, and building automation,” he notes.



“There are so many other projects in Eclipse IoT, and several of them, including Eclipse ioFog and Eclipse Hono, are a good fit with both of our projects,” Struss continues. “So, it was a no-brainer decision to contribute Streamsheets.”

Struss says there are other open source foundations with good reputations, but the Eclipse Foundation is *the* place for open source IoT. “If you’re working with open source in the IoT domain, the Eclipse Foundation is the obvious choice,” he says. “It’s not just the depth and breadth of IoT projects that are at the Eclipse

Foundation, it's the companies that are behind those projects and adopting the technologies. Big-name companies, such as Bosch, are actually using the Eclipse Foundation technologies to build IoT solutions," he adds.

The Eclipse Foundation hosts more than 45 open source IoT projects, helping organizations across IoT technology domains find new ways to collaborate and build end-to-end IoT solutions that cannot be developed by a single organization on its own. In addition to Bosch, Eurotech, and Red Hat, companies such as Microsoft, Arm, Intel, Sierra Wireless, Otokar, and ADLINK also participate in Eclipse IoT projects.

Because the Cedalo team recognized the value of an open source approach from the beginning, they donated Streamsheets to the Eclipse Foundation and joined as a Contributing member.

Tailored Membership Levels Align With Corporate Goals

Contributing members view Eclipse Foundation technologies as key to their strategies and offer products and services based on, or with, Eclipse Foundation technologies. The Eclipse Foundation also offers memberships at the following levels:

- **Strategic:** Members invest significant resources in advancing the technologies hosted at the Foundation and have a seat on the Foundation's Board of Directors.

- **Associate:** Members participate in, and show support for, the Eclipse Foundation ecosystem.
- **Committer:** Members are the core developers of Eclipse Foundation projects who can commit changes to project source code.

Membership pricing is based on a company's size and annual corporate revenues, making it financially feasible for a smaller company, such as Cedalo, to join the Eclipse Foundation.

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Eclipse Foundation Membership Is Great for Visibility, Adoption, and Feedback

According to Struss, the three biggest benefits of joining the Eclipse Foundation are increased visibility, technology adoption, and feedback. “Since we joined the Eclipse Foundation, more people are aware of Cedalo and they’re approaching us about our open source offerings and our premium offerings because the Eclipse Foundation is really A+ on the reputation side,” he says.

The Foundation’s vendor-neutral governance model and stellar reputation in open source software create an automatic level of trust in end users. “You have to go through several steps where they do background checks, they verify that licensing is in order, and so forth. Users are reassured because you’ve gone through that process and have the Eclipse Foundation brand behind you. It’s great for those of us who are offering open source technologies because it means those technologies come with an immediate trustworthiness,” says Struss.

“With more traction, and more people using our software, we’re getting valuable feedback that will help us improve the software to better serve our users and also generate revenue through our commercial offerings,” adds Struss. “We’re also getting feedback from other technical people who know the space well and are showing us how our software can interact with the technologies they know and are using.”

Cedalo is gaining visibility even when the company’s employees are not directly involved. In February 2020, Eclipse Streamsheets and Eclipse Mosquitto

were shown along with Eclipse ioFog at Bosch ConnectedWorld. “We weren’t at the booth, but other people from the Eclipse Foundation were highlighting the Streamsheets and Mosquitto software and that was quite cool,” says Struss. “In some ways, it was better than us being there because it’s always good when other people are fans of your technology and can show it.”

A Broad Technology Portfolio Offers Numerous Opportunities

For companies who are considering an open source business model, Struss recommends a two-step approach.

“First, consider the trade-offs with open source,” he suggests. “You’re giving away control over

the software without earning revenues on it, but you’re gaining visibility, adoption, and collaboration opportunities. You have a lot of flexibility to offer value to your customers in different ways, whether that’s through consulting, custom integration, or extensions to the software.”

Once companies determine that open source is the right approach for their business, Struss says the next step is to evaluate the different foundations that specialize in their technology area. “For open source IoT, the Eclipse Foundation is the clear choice,” says Struss. “But the Eclipse Foundation specializes in many other technology areas and hosts many other projects as well. If you’re in a technology area that the Foundation does really well, I would definitely go there,” he concludes.

About Cedalo

Cedalo is a German open source company dedicated to making IoT and stream processing accessible to business end users. The company’s two open source projects — Eclipse Streamsheets and Eclipse Mosquitto — are included in the Cedalo Community Platform:

The logo for Cedalo, featuring the word "cedalo" in a bold, lowercase, sans-serif font. The letters are a vibrant pink color.

- [Eclipse Streamsheets](#) is a powerful no-code platform to build applications for industrial automation, connectivity, and event stream processing.
- [Eclipse Mosquitto](#) is the most popular MQTT broker in the world with many use cases throughout all industries that rely on real-time data.

Cedalo also offers premium editions of the two technologies and their platform.

For more information, visit cedalo.com.



About the Eclipse Foundation

The Eclipse Foundation provides its global community of individuals and organizations with a mature, scalable, and business-friendly environment for open source software collaboration and innovation.

The Foundation is home to the Eclipse IDE, Jakarta EE, and more than 375 open source projects, including runtimes, tools, and frameworks for cloud and edge applications, IoT, AI, automotive, systems engineering, distributed ledger technologies, open processor designs, and many others.

The Eclipse Foundation is a not-for-profit organization supported by more than 300 members, including industry leaders who value open source as a key enabler for their business strategies.

The Eclipse Foundation's [Eclipse IoT Working Group](#) hosts more than 45 open source IoT projects, helping organizations across IoT technology domains find new ways to collaborate and build end-to-end IoT solutions that cannot be developed by a single organization on its own. In addition to Bosch, Eurotech, and Red Hat, companies such as Microsoft, Arm, Intel, Sierra Wireless, Otokar, and ADLINK also participate in Eclipse IoT projects.

To learn more about the benefits of membership in the Eclipse Foundation, visit eclipse.org/membership.

To stay connected with the Eclipse Foundation, follow us on Twitter [@EclipseFdn](#), [LinkedIn](#), or visit eclipse.org.

To learn more about the Eclipse IoT Working Group, visit iot.eclipse.org.

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