The Challenge of Open Source Software

Opening Up with Simon Phipps, Sun's Chief Open Source Officer

Here are the questions Sun *Inner Circle* is asking Simon:

1. **You've now been in the chief open source officer position for almost a year. Tell us about your role and its responsibilities.**
2. **What are some of the challenges that the Open Source Group must confront?**
3. **Can you tell us which open source business model Sun supports?**
4. **Broadening the discussion a bit, what are the biggest challenges that open source communities, in general, face today?**
5. **Is there a particular governance model that seems to work best for open source projects?**
6. **Can you give us examples of how governance shapes open source projects?**
7. **There are some people who claim that Sun is delaying the open sourcing of Java technology. Why not just pick a license and be done with it?**
8. **In the past, you've claimed open source is "connected capitalism." Can you explain what you mean by that statement?**
9. **Can you give an example of how connected capitalism has an impact on end-users?**
10. **Speaking of ODF, what are some of the real business needs it addresses?**
11. **What's the next big open source challenge for Sun?**
12. **So, how does Sun meet Jonathan Schwartz's open source challenge?**

With 20 years of experience in software development, Simon Phipps has helped guide Sun's open source strategy, including the OpenSolaris project. Now, as chief open source officer at Sun, Phipps has been given the weighty task of deciding how to open source all of Sun's software.

Inner Circle recently sat down with Phipps to discuss open source licenses, working with communities of developers, and how governance of open source projects is critical to success.

Inner Circle: You've now been in the chief open source officer position for almost a year. Tell us about your role and its responsibilities.

PHIPPS: It's an exciting role, and one that leverages what I've done as chief technology evangelist at Sun in the past. In this role, my responsibilities have expanded as a result of the formation of the Open Source Group at Sun. This particular group has quite a broad and diverse set of responsibilities — as might be expected from an organization that exists to create a consistent approach across all of Sun's open source projects.

» What are some of the challenges that the Open Source Group must confront?

PHIPPS: Licensing policy is obviously a very important matter for us, but the Open Source Group at Sun has other equally important tasks. It also seeks to determine how Sun is going to identify its open source projects, as well as what approaches should be taken with regards to the governance of open source projects. Within the team there are people with a technical interest in the open sourcing of Java, Solaris, and Sun development tools. Plus, the group also helps the customer-facing staff understand and communicate Sun's open source commitment.

» Can you tell us which open source business model Sun supports?

PHIPPS: I think it's funny that people still talk about an open source business model. As far as I can tell, there is no single business model for open source projects. The term "open source" really describes what happens when a community of developers gathers around a shared body of source code, and uses that knowledge to create software products or programs that meet specific needs. But, those needs are not always the same thing. Some developers are working on open source projects to make money, others for social ends, and some are in it for the fun of it.

So, just as there are many different motivations for involvement, there are many different business models that can be used by an open source community. At Sun, our current thinking tends to promote a model that makes the software available completely without charge. Then we provide services that are useful in putting that open source-based software into production.

» Broadening the discussion a bit, what are the biggest challenges that open source communities, in general, face today?

PHIPPS: I believe the biggest challenge for an open source community is to understand in what ways governance will impact its community members. Governance is critical to an open source project. While open source licensing lets people have access to source code, this doesn't have to mean that chaos ensues. In fact, open source projects are typically very well organized and are run with a great deal of professionalism and discipline. Governance helps ensure that the people running the project can decide what gets incorporated into the source code.

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There are one or two open source communities that really don't seem to have good governance. The lack of good governance leads to a loss of freedom for the people that use the software. Good governance lets open source communities decide upon standards, and good open source standards are implemented by multiple software products leading to the long-term sustainability of all of the software. Open standards define the interoperability of the software that a community produces. Ironically, some open source projects are built without an understanding of open standards.

» Is there a particular governance model that seems to work best for open source projects?

PHIPPS: There isn't a single one-size-fits-all approach to governance. Different communities have different needs, but there are also attributes that are essential to good governance — like meritocracy, transparency of process, and open access for everybody with the necessary skills to participate in a project. How governance gets structured really depends on the organization. For example, governance of the Apache Software Foundation is quite different than the governance of the GNOME Software Foundation. Both organizations are very meritocratic, but the Apache approach is very formal, while the GNOME governance model is more relaxed. Both are exemplars of good governance.

» Can you give us examples of how governance shapes open source projects?

PHIPPS: Without some sort of structure, OpenSolaris wouldn't be where it is today, with over 13,000 registered community members. The members of this community have discovered over 400 bugs and offered 150 contributions. The OpenSolaris governance model helps make the decisions over which contributions to include in OpenSolaris.

» There are some people who claim that Sun is delaying the open sourcing of Java technology. Why not just pick a license and be done with it?

PHIPPS: If it were that easy, Sun would have open sourced Java a long time ago. But open sourcing commercial software is more than just picking a license. Existing developers need to be respected. And, it's important to figure out how the governance of the project will respect the contributors. There are also issues about proving relicensing rights — not to mention producing an environment in which a well-designed and backwards compatible implementation of the Java platform can be kept in the marketplace. So, Sun isn't delaying. Sun is figuring out which license will work best, devising governance, reviewing copyright ownership and so on. We'll make releases incrementally over the coming year. That model worked for OpenSolaris, and I intend to make sure it works for the Java platform, too.

» In the past, you've claimed open source is "connected capitalism." Can you explain what you mean by that statement?

PHIPPS: Yes, that phrase makes some people concerned when they first hear it, but in context it makes sense. Some people in the computer industry compare open source to communism. Instead, I suggest that open source is about people creating things they value, which is quite an entrepreneurial concept. And because open source projects aren't performed in isolation, the phrase "connected capitalism" seems to be a good way to explain the end result of the virtuous cycle of open source development. It's easy to look at the open source development process where developers fix bugs and add features and assume that all of the contributions are exclusively altruistic. But actually this process is about people synchronizing interests while developing the software they need.

» Can you give an example of how connected capitalism has an impact on end-users?

PHIPPS: The OpenDocument format certainly connects people. With XML formats for office productivity programs — like word processing and spreadsheets — people have a

completely free choice of which products they use to edit their documents and share information. Even Microsoft — the dominant supplier of word processing software — has recognized that it needs to provide support for the OpenDocument format, so people can have business relationships without being tied to technical dependencies.

» Speaking of ODF, what are some of the real business needs it addresses?

PHIPPS: OpenDocument is now an international standard — ISO/IEC standard 26300. It has become a standard for companies and governments worldwide. This means more transparency, particularly for audits. In today's business environment, it's increasingly important that data remains readable for a long period of time. Regulations such as Sarbanes-Oxley include auditability requirements, and it's really important to have document formats that can be widely read and resistant to obsolescence.

» What's the next big open source challenge for Sun?

PHIPPS: We have to meet the objective that Jonathan Schwartz has set for us as a company, which is to open source all of the software that Sun produces. Sounds easy, doesn't it? But it's a big challenge because Sun has such an extensive software portfolio. We have a great operating system. We have server software that businesses depend on. We have a portal server. We handle email. There's software that does identity management and helps manage security. The list goes on and on.

» So, how does Sun meet Jonathan Schwartz's open source challenge?

PHIPPS: Turning this comprehensive stack of software into open source software is going to be a big task. Right now I'm helping my team understand how this task is going to be fulfilled, which calls for asking a lot of questions. For example, does the world need Sun to open source all of its products? Or, should Sun use some open source products that are already in the marketplace in lieu of our existing products? And then, of course, there's the matter of determining the governance model for the open source projects Sun is working on. It's going to be very, very busy time for the Open Source Group.