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For Cloud Professionals, part of the On Cloud Podcast

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Title:	**Opening up the world of commercial open source software**
Description:	Open source software is nothing new. Companies have depended on it for years to power IT infrastructure. However, the commercialization of open source—which focuses on the nexus of open source and monetization—is a new category that holds great innovation potential for both open source creators and the companies that use their product--particularly at the application layer. In this episode of the podcast, David Linthicum talks with Joseph Jacks, founder and general partner of OSS Capital, about the genesis of commercial open source and how the relationship between cloud providers and open source companies is slowly changing, for the better. Joseph also shares his insights on where commercial open source is going in the future and how companies can better integrate it into their development strategies.
Duration:	**00:22:23**

Operator:
The views, thoughts, and opinions expressed by speakers or guests on this podcast belong solely to them, and do not necessarily reflect those of the hosts, the moderators, or Deloitte. Welcome to On Cloud, the podcast for cloud professionals, where we break down the state of cloud computing today and how you can unleash the power of cloud for your enterprise. Now here is your host David Linthicum.

David Linthicum:
Welcome back to the On Cloud podcast, your one place to find out how to make cloud computing work for your enterprise. This is an objective discussion with industry thought leaders who provide their own unique perspective around the pragmatic use of cloud-based technology. Today on the show, we have Joseph Jacks. Joseph is the founder and general partner of OSS Capital. He's based in San Francisco and leads the US investing arm, as well as global investment strategies, but that's not all you do, Joseph. Why don't you catch us up on what you've been up to in the last couple of years?

Joseph Jacks:
Sure, yeah. Well, first, thanks for having me on, David. This is a pleasure and honor, and I'm excited to talk with you and your audience. I started off in my career a decade or so ago in technology sales, and I was a sales engineer and salesperson working at a variety of enterprise software, enterprise technology companies. I guess the seed that led to what I'm doing now was working at a French open source – commercial open source vendor that was in the data

integration middleware space. They had an enterprise service bus product as well as an ETL kind of tool and learned a lot about commercial open source dynamics there. Worked at TIBCO Software after that for a little bit, Enstratius Networks after that, multi-cloud management tools.

And the last five or six years have been focused pretty intensely on open source. I was lucky enough to be a consultant and help with Mesosphere early on when they were getting going. This is the company behind Apache Mesos, and they did a name change a year or so ago. But Kubernetes was released in the middle of 2014, and along with a couple other folks, I got a small startup formed to help people learn about Kubernetes, and that led to starting the conference around Kubernetes that I founded and ran for the first couple of events. That's KubeCon. KubeCon was ultimately donated to the CNCF, which is the Cloud Native Computing Foundation. Cloud Native Computing Foundation is Linux Foundation's specialized foundation for this cloud native movement and trend, and it's also the home for Kubernetes and a variety of other open source projects. And so I was part of CNCF early on for a bit, different levels.

And really what leads to what I'm doing now is, I kind of have developed an obsession and a deep interest in commercial open source, which is a bit different from open source, in that commercial open source focuses on the intersection of open source and business and commercialization and monetization, in the context of startups and building companies. And it's quite a nuanced thing. We believe it's a new category, so I started with some blogging and kind of writing perspectives a year or so, a couple years ago, and that led to the thought that there should be a very focused investment kind of firm and investment platform and knowledge platform and network and community focused on this category.

So what we've been building over the last year and change is a few things. We have a conference called Open Core Summit, which is the commercial open source ecosystem conference. First one happened a few months back. We had close to 1,000 people there, lots of the major cloud providers, enterprises, I believe a handful of folks from Deloitte were there, as well as lots of the large commercial open source vendors. Companies like GitLab and CloudBees, Cloudera, Red Hat, MongoDB, and many others, and lots of open source developers as well, so the people kind of doing all the innovation. We also have a fund that does very early stage seed and co-participating Series A investing. So super, super early partnering with founders that are building commercial open source companies. We also are launching an accelerator pretty soon, which is targeted at helping open source maintainers and developers learn how to become entrepreneurs and start companies around their open source projects.

And the final thing is we're doing lots of media, so thanks again for giving me the opportunity to talk on your podcast. We have a media portal called Commercial Open source Software Media, COSS.Media, and that's where we do lots of content and blogs and research and reports, interviews and that sort of thing. So we're really excited about this category. Super early in in kind of helping and trying to codify things more and build a community, but yeah, that's pretty much what I'm up to now. I have the help of a handful of people and really lucky to work with some awesome folks.

David Linthicum:
Man, you've been busy. So going forward, if I'm looking to start a commercialized open source company, what do I need? What's the process of moving forward? How do I jump start it? What are the typical trends in how people are making these work?

Joseph Jacks:
We have a really interesting spreadsheet called the COSSI Index. It's an acronym, C-O-S-S-I. It's a commercial open source software index, and it's a list of the largest commercial open source software companies, so companies like MongoDB, and GitLab, and Confluence, and many others are listed there, and we have like a minimum revenue criteria that we calculate and some heuristics. Most of these companies are private. There's been lots of outcomes over the last few years.

But to answer your question, David, we actually look at one data point, alongside 20 others, which is how do these companies get started. And interestingly, the four primary sources of founding from these companies is pretty insightful. So one is academia. So lots of these open source projects actually get built in a research lab at a university by a PhD graduate, or pursuing some type of abstract implementation of something in the industry. The other source is large technology company projects. So you can think of Google file system and MapReduce at Google inspiring a system like Hadoop. You can think of the Apache Mesos project getting built at Twitter to solve lots of their pain points. But that was something that actually came out of academia before that, scaled inside of Twitter. Lots of companies that are going through hyperscale growth periods drive and motivate open source projects that ultimately are the basis for large companies and large positive sum ecosystems.

Another source is just as a personal project, so Elasticsearch is quite a large, popular open source technology and has a multibillion-dollar company around it called Elastic. Was actually started by Shay Banon as a personal project, and he was building that for his own personal use and needs, and ultimately that project became very large and successful and formed a large ecosystem and company and so on. So those are the top three ones. I'd say the fourth, which isn't as popular, is spin out, technology spin out, so you have some proprietary technology that has been powering a system, or a company, or platform for some time and a company decides to open source it. So that's a fourth. There's actually quite an interesting distribution of where those kind of technologies come from and sources of origin around the technology itself, which serves as the basis for the commercial open source software company.

I guess another way of answering your question is, how do you form one of these companies? Well, the most common denominator, really, which is almost universally true, is that software engineers create the open source technology first, and sometimes that's in parallel at the same time with forming the company. Sometimes the projects come before the company. Sometimes the company's formed and the projects are created after as a core strategy. And there's interesting distribution there in the data that we've looked at, but I'd say, fundamentally, most of these companies are started by software engineers, and they're solving a specific problem.

Deciding to choose the open source path for value creation reasons, distribution reasons, building a developer ecosystem and many other reasons, and that leads into kind of part of what we believe, which is that commercial open source companies, as a result of fundamentally getting built on these open source projects, are actually completely different. They're a new category, and because they rely on the open source project to justify their existence, these companies, the marketing and distribution elements are certainly different, but we believe – we contend that the marketing dimension is also different, the hiring dimension is very different, business models are different, finance is different, strategy, engineering, the full set of functions.

David Linthicum:

So would you consider them kind of hybrid companies where they have part of their business is providing software for free, that it's part of a base open source offering, and then part of their business is monetizing whatever open source technology they're supporting, you know, typically through adapters or extensions or things that they can charge for as well as professional service? Or am I missing something?

Joseph Jacks:
No, no, that's a great way of describing. I mean, when you say hybrid, there's a lot of density in that word, so there's different ways of interpreting that word, but I'd say the kind of thing to emphasize there is the duality or parallel track of building and investing in and maintaining a free open source technology that is highly permissive and grants anyone rights to really do anything with the technology, honoring the open source definition, which is , anyone can use, and modify, and distribute, and commercialize the technology. A company that is commercializing around that really has to look at building their business very differently.

So if you compare that to SaaS, for example, or traditional closed proprietary technology company, which isn't necessarily right or wrong or morally good or bad. It's just a different approach. The company doesn't have this duality of investment in R&D and management to deal with. From one lens, it's a simpler path, which is you build a product and you charge for the product. You might have premium tier or a trial tier version of some kind, but open source is very different. Open source is, if you've got a project that serves for creating most of the value, the company really has to balance this kind of hybrid approach, like you were saying, and it does become quite different.

David Linthicum:
So I ran companies like this before, but way before I think this stuff started to emerge. The benefits would be – and correct me if I'm wrong – the marketing costs are going to be much lower, because, in essence, the interest in the open source software, the ability to have people download the systems, and those, in essence, become your leads and become your community, which become your ability to upsell your monetized products really gets in there, so you don't have to spend a lot of money on marketing teams, on PR, on other things. It's kind of an organic growth model that's almost automated. Is that oversimplification?

Joseph Jacks:
You know, I think it could be, but in a lot of ways it's totally true and correct. So from a lead generation, top of funnel perspective, a lot of people in the industry look at this commercial open source approach and way of building a company really just as a marketing tool, marketing approach, like maximizing the lead flow and maximizing the value that you can create, as well as just reducing marketing costs, like you were saying, and making it a lot easier to go to market. We think it's a little bit more nuanced than that. So from the perspective of the upsell comment that you made, it's sometimes very dangerous to view the open source user base and community as a customer base. In fact, this is not universally true, but in most cases, the open source community and the people using the open source technology, in large part software developers, are not your direct customers from the perspective of the commercial open source company.

Your customers are CIOs and CTOs and the groups that they run and manage within large enterprises. And those constituents are very different in terms of their engagement with a company. So developers, oftentimes, they don't want to engage with a company. They want to engage with a community. They want to engage with the open source technology, and they expect a different kind of social contract to materialize as a result of that. So a lot of companies kind of have a challenge where they look at those "leads" uniformly. And they don't break down the persona and the classification of people that are really important constituents and extremely valuable in their marketplaces and their ecosystems.

Really, just taking and using the technology and not really giving anything back, while also having to manage this dynamic where, frankly, as I'm sure you've seen in your work at Deloitte and over the years in the industry, developers are increasingly becoming the recommenders and the strongest advocates for technology evolution and strategy inside of even large enterprises. And so if they're picking and choosing and voting with their feet through open source technology adoption, you really have to look at how that translates into reducing customer acquisition cost when you go to market and sell to enterprises. And I think this commercial open source category, it's not brand new, but we've really seen with lots of materialization and codification over the last just in particular ten years. This world is starting to better codify those two relationships between the developer community and the enterprise customer base.

David Linthicum:
Yeah, I find it's an attractive model because in essence you're judged by the value of your technology more so than your marketing message. So there's some dust ups and some back and forth on the open source players and the public cloud providers going forward. How are they working and playing well together? Where are they collaborating and getting things right and where could they improve?

Joseph Jacks:
Yeah, this a great question, and I'm fortunate enough to have organized a conference that brought kind of all of these players together. We had Azure, Google, AWS, and some of the largest commercial open source vendors there. The relationships are quite dynamic and across the board. Some cloud providers are viewed very positively. Others are viewed as there's some challenges and there's some complexities in terms of how they engage and how they contribute and invest in either, one particular open source project, or the open source ecosystem overall. And I think – I guess some of the observations that we've made in the cloud provider landscape, as it relates to open source and, of course, commercial open source vendors, is really just kind of just an increase in investment, appreciation, acknowledgment and technology evolution and posture overall.

Embracing open source more as a central part of a strategy, as well as just iterating more on what those relationship dynamics look like. And so a lot of the most successful commercial open source vendors that we see, from their perspective looking at the cloud providers, is they have quite a positive and optimistic view and, in fact, enthusiastic view about the partnership with the cloud provider and actually enabling the cloud provider to be successful with their open source project and the open source technology that they purvey, and that they steward, and commercialize, and invest heavily in, and so on.

While other commercial open source software vendors view – and this is certainly not unilateral and generalized, but this is another perspective – they view the cloud providers as a threat, and they view the cloud providers as a danger and harmful entity that they must compete with and they must prevent from entering their market and their customer base at all costs. And my personal view on this is that I think it's best for all constituents – the cloud providers and the commercial open source vendors and enterprises and even developers – to really look at the fundamentals, which is that open source, at the end of the day, is about building positive sum ecosystems as opposed to zero sum monopolistic ecosystems.

And as a result of that, the economics and the capitalistic dynamics are very different in the world of software as a service and building categories and doing category creation where you have one company that owns and dominates that category, and it's like a de facto standard. In the context of commercial open source, you might have a de facto standard open source technology. It's very rare to have a de facto standard commercial open source vendor capturing most of the value that the open source project creates. And so I guess another way of pointing out some of the fundamentals here is that we view open source in terms of digital technology, digital transformation, as the primary value creation source and mechanism in the world full stop.

And so you look at most software companies and technology companies, they use huge amounts of open source to build and compile their proprietary products, but by the same token, software developers primarily use open source as their main way to innovate and to very quickly build new applications and solutions and so on. And so we think the – if you contrast the rate of innovation in the cloud provider ecosystem to the rate of innovation in the open source ecosystem, we think that the latter far outstrips the former just in terms of raw digital technology innovation. And this is actually something we said when we were opening up this conference and all the cloud providers and open source – a lot of the major commercial open source vendors were there.

We didn't have any problem saying this. We really truly believe it to be a fact, which is that open source is really about this zero to one innovation, exponential innovation, and we think the cloud certainly has elements of innovation, but we think the cloud is really more about one to N, mass distribution, mass globalization of technology. And so as a consequence, if you view open source as positive sum and enabling lots of this technology innovation from zero to one, it's incumbent upon you as an open source vendor, as a commercial open source company, to partner with the cloud providers and actually help them and enable them to be successful with your project and not view them as competition.

David Linthicum:
I want to put you on the spot. Last question. What are going to be the trends this year and next year around commercialized open source and also how it relates to cloud computing?

Joseph Jacks:
That's a really big question. I think one of the big things is going to be open source becoming more and more relevant at the application layer. This is something that I think will be more clear. Up until now, really, it's kind of super obvious at the infrastructure layer, middleware and the IT stack. Open source is pervasive and it's kind of everywhere. At the database layer, obviously operating systems and languages and middleware and data tooling and so on. Even business intelligence is starting to shift quite heavily over to the open source world. But I think at the application layer, we're going to start to see a big shift in terms of the core three-letter acronym application categories. There was some innovation and progress here ten, fifteen years ago, but just with the critical mass of software engineers that we see now building open source, we think application layer is going to be a big trend.

I'd say another maybe kind of prediction would be that the cloud providers will all uniformly standardize and embrace on open source as a core strategy. The last re:Invent just occurred, and we didn't really hear Andy Jassy say anything about open source on stage, which I found a little disappointing. Open source has really been central to Amazon's strategy as a platform and as a cloud provider. They predominantly build on open source to deliver value and innovation to their customers. So I think we'll just see open source as more of a central part of the cloud providers' strategies and more commercial open source services.

I'd say maybe a more specific prediction over the next few years would be that the majority of cloud services across all the cloud providers will be based on a core open source project as opposed to some proprietary technology. So right now, Amazon Web Services has I think something north of 165 services. Only about 20 percent of those services are based on a core open source project, and so we think more than half will be based on a core open source technology over the next five years. And this will just kind of indicate more investment and a bigger, more extensive, shift toward open source.

David Linthicum:
I think that's great advice and I think that stuff's going to come true. So where can the listeners find out more about you and the projects you're working on?

Joseph Jacks:
Yeah, I'm pretty active on Twitter. I've got my DMs open, so people can contact me that way. I'm @asynchio, A-S-Y-N-C-H-I-O. If you want to learn about commercial open source, you can go to COSS.Media, so that's C-O-S-S dot media. And we have a conference. So we're bringing the Open Core Summit to four regions this year. We'll pick a new city each year, so this year it's Paris, Beijing, New York City and Tel Aviv. Paris is coming up in April, Beijing is in June, New York City is in September, Tel Aviv is in December. And so that's OpenCoreSummit.com. And for our investment firm, it's OSS.capital on the web.

David Linthicum:
Please look up Joseph. He's one of the smartest guys. And just kind of as a side story, I've heard from at least five people who told me to get him on the podcast as soon as we can, so he has a big following out there. So if you enjoyed this podcast, make sure to like and subscribe on iTunes or wherever you get your podcasts. Also check out our past podcasts, including the On Cloud podcast hosted by my good friend, Mike Kavis, on his show, Architecting the Cloud. Also buy his book by the same name. It's a great book. And if you would like to learn more about Deloitte's cloud capabilities, check out DeloitteCloudPodcast, all one word, dot com. And if you'd like to contact me directly, reach out to me at dlinthicum – L-I-N-T-H-I-C-U-M – at Deloitte.com. So until next time, best of luck in building those cloud computing projects. We'll talk to you guys in a week. Take good care.

Operator:
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