EPISODE 1276

[INTRODUCTION]

[00:00:00] CQ: Hello there. I'm Corey Quinn, Chief Cloud Economist at The Duckbill Group. I also host two podcasts, AWS Morning Brief and Screaming in the Cloud. I also write The Last Week in AWS newsletter. I'll taking over hosting duties of Software Engineering Daily for this week, and taking you on a tour of the cloud.

Today's cloud that we're exploring is DigitalOcean, which people have always heard of, but often don't know where it starts and where it stops.

[00:00:29] JM: A few announcements before we get started. One, if you like Clubhouse, subscribe to the club for Software Daily on Clubhouse. It's just Software Daily. We'll be doing some interesting Clubhouse sessions within the next few weeks. Two, if you are looking for a job, we are hiring a variety of roles. We're looking for a social media manager. We're looking for a graphic designer, and we're looking for writers.

If you are interested in contributing content to Software Engineering Daily, or even if you're a podcaster, and you're curious about how to get involved, we are looking for people with interesting backgrounds who can contribute to Software Engineering Daily. Again, mostly we're looking for social media help and design help. If you're a writer or a podcaster, we'd also love to hear from you.

You can send me an email with your resume, jeff@softwareengineeringdaily.com. That's jeff@softwareengineeringdaily.com.

[INTERVIEW]

[00:01:34] CQ: Joining me today is John Allspaw, Founder of Adaptive Capacity Labs. John, thanks for joining me.

[00:01:41] JA: Thanks for having me.

[00:01:44] CQ: People understand where you're coming from. You do not, nor have you ever worked at DigitalOcean. Correct?

[00:01:51] JA: Correct. I absolutely have not.

[00:01:56] CQ: You have of course been in a lot of interesting places and done an awful lot of interesting things. The joy that I know myself, from going down the path of being the independent consultant, or starting a consultancy means that oh, people don't really know what you do, or where you've been, or where your expertise lies. You were at Etsy for something like seven years.

[00:02:17] JA: Yeah. Yep, that's about right. Yeah. Yeah. Lots happened during those seven years. Sometimes it felt like two weeks, and sometimes it felt like 70 years.

[00:02:28] CQ: You wound up transition into a number of different roles there and wound up leaving as their CTO, which you were in for a little over a year and a half. You started your career as well – it says here that you started off once upon a time, as a systems engineer/Unix systems engineer, which I shorthand in my mind to Unix sysadmin. You can put the word grumpy in front of that, because having been one myself, it's not like there's another kind. Unix just tears it out of you.

[00:02:55] JA: Yeah, yeah. Yes, yes. That's what the learning curve, at least for me in the mid-90s did to me. I'd like to say that I certainly was grumpy. Because it would be weird if I wasn't. Certainly, I would like to say that I wasn't the grumpiest. How is that?

[00:03:13] CQ: No, no. I think I worked with the person who was. I think that for people who have gone down the path that we have walked, where we got into tech and became the tech people that we are, our path was starting off as a Unix sysadmin and evolving from there. Even now, at a time when everything is cloud, cloud, cloud, cloud, cloud, we still find ourselves in many cases, at least I do, returning to my roots when I'm trying to get a problem solved quickly. My default set of tooling when I'm trying to solve something is usually a pretty crappy bash script, because I'm not sure there's such a thing as a good one.

I tie together a whole bunch of Unix commands to do one thing right, pipe from one to the next, to the next. Are there better, more elegant ways to do these things? Absolutely. I know these tools. I've been using them for most of my career, and they just work.

[00:04:03] JA: Yeah. Same here. If there's any reflection on what you just said, it would be that I'm at least old enough to know that the best tool is what helps you get shit done. I'm quite okay with not winning any elegance awards.

[00:04:20] CQ: On some level that's a little more of a negative take than I was going to frame it. It's perfect for a segue, we're going to go with it. This brings us to DigitalOcean. Because when you start looking around, they've recently gone public and they've done well, but they're not a hyper-scaler by any stretch of the imagination. They're making money most years, and things are going well, but there are no companies that we really talked to in the hyperscale space when you ask them, "Oh, so what do you do for infrastructure?" Some of the older companies, like Google and Amazon themselves have built all this stuff out. Facebook is also doing it in different ways. Apple is a weird special case in its own right.

Then you have the new crop of hyper-scalers that are very publicly referenceable cloud customers. You Have Spotify that has done an awful lot of work on top of a GCP. Netflix talks constantly about how much work they do with AWS. Pinterest is also in AWS. You look around, great. Who are those companies that are running on top of DigitalOcean? You don't see any of them? It's, oh, so they must not be a real company in some respects.

Then you start digging a little bit. Okay, so who is a DigitalOcean customer? The answer is everyone, but they're not running these massive build outs there. That's why I wanted to talk to you. When I put the call out for who is willing to go on record talking about DigitalOcean? You're one of the few people who said yes, because I talked to a bunch of DigitalOcean customers and the story was always, "Hey, can I get you to talk about your experience?" "Well, it's shadow IT. They don't really know that we use it here and I don't want to get in trouble," which is a weird thing, but it makes perfect sense. We'll get there. Tell me about what you do with DigitalOcean.

[00:06:03] JA: We use droplets. We've been doing it for since we started Adaptive Capacity Labs. For the most part, in a nutshell, I think we'll sometimes temporarily, I think, launch maybe

two or three just droplets to mess with and we end up destroying them after. Mostly experiments.

We've had two or three droplets that have continually, I don't know what the uptime on them looks like, but they've been running for a couple years at this point. They host a bit of a hodgepodge of tools that we use ourselves and develop ourselves in doing incident analysis work and learning from incidents work. There's nothing technically exotic or novel. I mean, these are Node.JS, some MySQL databases. Like a couple of other open source packages, like open refine. Lots of data cleaning tools and that sort of thing. That's the high level.

[00:07:24] CQ: If you go to digitalocean.com today and take a look at what they're offering, it feels they've departed from the way that you and I clearly think about what they do. They've now, instead of talking about droplets, which are their virtual machines called DigitalOcean, they call their instances droplets. It's adorable to someone, I'm sure. They've broken it down now.

They have compute offerings and database offerings and storage offerings and network offerings, and for some godforsaken reason, they have a managed Kubernetes platform and a bunch of other things in there. That's great. The reason that I was a DigitalOcean customer was simply that you can come in from the perspective of knowing vaguely how a Linux box works. Sign up for an account, start clicking around. Within a minute, you'll have – that your droplet up and running that you can log into, then you can get to work.

Say what you will about the other large hyper-scalers and for all their technical mastery in the rest, there is so much work and fundamental knowledge that you need when approaching these things for the first time. Getting an EC2 instance up and running in AWS takes the fetching almost 12 other services. IAM, learning how the console works, making sure the bill isn't going to surprise you.

With DigitalOcean, it's cool. You're going to get this size resource for whatever it is that you want. You're going to pay a fixed fee every month for the thing and that's it. Years later, AWS came up with their litesail offering, which tries to be the same thing, but reading their terms and conditions, it sounds like a terrified someone would actually use it that way. Their support for it can only be described as begrudging, if I'm being honest.

[00:09:04] JA: Yeah. That is I mean, exactly what you described. Frankly, like I said, what I like about DigitalOcean, which makes it, I mentioned just spinning stuff up to mess with something temporarily, is we can focus on whatever it is we're doing with the "computer" that they're giving us, and not how to get the computer, or what I'm going to – I don't know. The use case, it just gets everything else out of the way, so I can focus on whatever it is I need to do. It's a very get shit done platform, as far as I'm concerned.

[00:09:50] CQ: Right. It doesn't force me to become an expert on DigitalOcean. I know that sounds like a weird thing, but I've never understood how some of these tech companies have somehow gotten to a point where in order to use their technology effectively, you don't just have to use it. You have to take classes on it and do deep studies on it. They will sell you training on using their platform and give certifications that they of course, charge you for on top of their platform. It just goes on and on and on. At some point, it's I sure I'm doing an awful lot of work for something that directly benefits you. What's the deal here? It's volunteering, in some ways, for large companies. I've always had a problem with that.

DigitalOcean is, again, they are not sponsoring this to my knowledge. They haven't paid me and honestly, I wish they would. I love the fact that they are the exact opposite of that. One thing that they've done for years is, I have to say, far away their documentation for how to do various things is some of the best on the Internet. Full stop.

[00:10:51] JA: Yes. Full disclosure, you can imagine based on what I've said, I don't do anything – My colleagues and I are not doing anything particularly difficult. Any time that I've needed to figure out something, it's easy to find the stuff that I need to find the documentation. I'm not spending as much time navigating it, as I am reading and understanding it. Really straightforward. I know that I've seen their documentation.

[00:11:25] CQ: We're talking of two different things. I'm glad that you said this, because that brings us to, I guess, an opportunity for me to talk about what I'm getting at. I don't run things on DigitalOcean myself, and I haven't for a couple of years, because my business is so AWS-centric, that anything even slightly load bearing – To be very direct, I prefer to have an

environment where I know people who are high enough in the org that I can call them personally and yell at them to get it fixed, if I need to.

It's a weird support plan, that's called being loud on Twitter. Who knew? I will spin up something over on AWS that I'm trying to test something on like, "Oh, I have to remember how to configure Nginx. That used to be my daily job, but it's been a few years, and I don't remember the configuration file syntax off the top of my head. I punch it to Google, how to configure Nginx. More often than not, a DigitalOcean documentation page is one of the first things you'll see.

Sure, it talks on some level, assuming a DigitalOcean droplet size environment, but it's not prescriptive to the point where none of it matches It's okay, you're in a Unix environment, here's where you start, here's where you stop. There's nothing about DigitalOcean specifically that matters in that article. I did some digging into how this works. It turns out that they pay people in the community to write documentation articles on how to do things like that.

They will take whatever it is that they pay, I forget the exact dollar figure, and pay that much again to a registered charity, I believe, of the author's choice, or select from a list or something like that. You're writing documentation and getting your name out there, you're getting paid to do it and you're benefiting a good cause. I'm looking at this and is this is amazing. This is the exact opposite of payoffs, and will tell people that you're certified in our platform. It's the inverse of that. It's one of the most amazing things I've seen. As soon as I discovered this, why does everyone not do this?

[00:13:15] JA: Yeah. I didn't know this. This is yeah. By the way, I'll just also say that there's all kinds of things that I will search for all the time. Yeah, a DigitalOcean article, that even just a little portion of the DigitalOcean article will have what I'm looking for. Pretty cool. I did not know that's how writing happens over there. That's very cool.

[00:13:41] CQ: Yeah. Okay, I just pulled up the page now. It's linked off the front page of their website. Authors typically received $300 per tutorial. The author then selects a single tech focus charity, or non-profit, or group of nonprofits united by similar missions to receive a donation from DigitalOcean. Then they wind up paying in both directions, which is awesome.

[00:14:00] JA: Yeah, absolutely. That is wild.

[00:14:05] CQ: It's why the documentation is so good. You have to apply for this. It's not a content farm where any yabo can wind up putting together something that reads like one of the old e-how documents of, "I'm just going to basically jam every search phrase we're trying to optimize for into this thing 85 times." It's well-written. They clearly have an editing process, because the voice is relatively consistent between most of the things that I'm reading. It's just the go-to answer, as opposed to something like Stack Overflow, where how do I configure Apache? It's the first result on Google. The response is, "This topic has been closed as off-topic, or as a duplicate."

It's great, but you're not going to delist it or anything from Google. You're still going to pollute the search results. Awesome. Great. That is what it takes to be a full stack overflow developer these days.

[00:14:51] JA: Excellent. Excellent. Yeah. Yeah. There's all of the articles and I'm just clicking around here. It seems as if they – there's so much in their little tutorials and other articles, that it's exactly what I want to know and it doesn't really say – doesn't seem like it's – if it is Digital – If there are nudges, or pushing to spend more on DigitalOcean, I'm not picking. I'm not remembering that and definitely not – I'm not conscious of it for sure.

[00:15:28] CQ: Yeah. For whatever reason, it just seems to work. Now, they did do a significant layoffs series over the past few years. I don't know the exact dates on this. It seems that a lot of people that I knew who worked there, and were great at doing things are no longer there. It's clear that again, as they filed to go public, I don't believe if they completed that or not, it's one of those areas where – yes, they are. As of March, they are publicly traded, DOCN on the New York Stock Exchange. Good for it. They made 319 million in revenue in 2020. They're losing about 43 million a year right now, but marketing expense, fine. Making money is so passe, apparently.

Great. It seems like they've changed their strategy as a result and their messaging, because going to digitalocean.com is not what it used to be for me, where it was get started, click here, we'll give you a pile of free credits, and you can spin up and you can serve a droplet and get

started. Now, it feels they're trying to compete on the same grounds as the big cloud providers, the tier-one hyper-scalers.

With love and respect to the company and the people there, they can't compete in that world. They just can't. They don't have the capital expenditures that are going to be – almost necessary to get there. They don't have the ability, for better or worse, to wind up offering the full breadth of solutions. Perhaps most damaging, there is no existing giant pile of customers you can point at who have done all of these things.

With AWS, or GCP, or Azure, for better or worse, it doesn't matter what you're trying to do in those environments. Punch into Google, ask on Twitter, someone has done something very similar on that platform before. In many cases, the public community blogs are far better than the official documentation. Because they talk about the real-world personal experience people have gone through. I find that a lot more understandable and relatable. You do have to evaluate from a somewhat conservative point of view, as far as is this actually going to be the right way to do things? Because there's some terrible advice on the Internet. Putting it in blog form doesn't make it better.

[00:17:31] JA: Yeah. Yeah. I don't know. I'm certainly not a marketing or business development person. If anybody from DigitalOcean is listening, I like doing what I'm doing. Please continue to help me do that. I'm quite fine with whatever you want to try.

[00:17:50] CQ: For me, at least, I can answer questions with DigitalOcean that I cannot in AWS around billing, for example. My entire business is built around optimizing the AWS bill for large environments. I would argue that at this point, I am pretty close to being the undisputed expert in AWS billing on a global scale, just because of the different experiences I have, the customers I talked to and the way I think about these things.

I still cannot tell you today, if I spin up an EC2 instance in AWS of a given size, and I put a WordPress blog on that thing and start posting about it, what my bill will be at the end of the month? Within any close at about 20% accuracy, because you're metered on snap and EBS volumes that store disk. Great. The snapshot backup functionality of that is based on how much has changed since the last snapshot. Data transfer is going to be non-deterministic. If I use their

CDN in front of it, the data transfer is going to change based upon the geographic location of the requester.

I will pay more for traffic when someone requests something from the Middle East, than I will if they request it from Baltimore. That becomes a very weird thing. I click the pricing page at DigitalOcean and wow, it turns out that optimizing your DigitalOcean bill is not a business I will be able to get into. Because it tells you upfront, oh, their basic droplet start at $5 a month. It comes with a gigabyte of RAM, 25 gigs of SSD disk and a terabyte of transfer. It goes up from there and various tearing and a whole bunch of different sizes. People go and look at this themselves. I'm not here to wind up selling these products for them. It's easily understood and it's easily understandable. At this point, predicting what my bill is going to be distills down to basic arithmetic.

[00:19:33] JA: Yeah, absolutely. I don't know if you could hear out, my eyes were rolling when you were describing trying to figure out what an EC2 instance for WordPress would be. That's my experience as well. If I wanted to change something about my health insurance plan, then I would – then I'd go to my insurance company and go through their ridiculous mind-bending through a labyrinth, and it sounds very similar to that.

[00:19:59] CQ: It is awful. Those are directionally aligned as far as the relative complexity goes. Now, I feel like, on some level, folks are looking at DigitalOcean internally and saying, "Well, look. We need to compete with these other folks, because we need to offer all these higher level differentiated services." Oh, yeah. I'm looking at this and I'm scoffing, because they don't even offer a managed blockchain. How can they possibly be a serious hosting provider without one of those useless things?

No. They have a different perspective on this. They have the building blocks of things that I consider the primitives that you absolutely need, which are virtual machines. They have an object store that they call spaces, also, with a reasonable pricing, predictable model, that is an S3 equivalent. They have load balancers, which is incredibly important when you're trying to have more than one of things. Hey, resiliency. Who woulda thunk it? They have managed database offerings, because honestly, I really don't want to manage bespoke, handcrafted MySQL or PostgresSQL databases ever again. That's it. That's really all I want from you. That is

what I think of when you say, "I have a DigitalOcean environment." Now they offer out a whole marketplaces area, where a bunch of vendors can configure things, and I don't know who uses that? Have you ever played with it?

[00:21:09] JA: I actually have actually.

[00:21:11] CQ: Oh, wonderful. Tell me more.

[00:21:13] JA: I think, it was maybe one of the first time – We were looking at open refine, this open source project. It's basically for cleaning shitloads of data. I think, came out of Google. If I'm not misremembering this, when we first had that the use case for it, I didn't really – I just wanted to just click a button. I said, "Oh, well. This might be a thing." I think that they just had it. I think in their marketplace, they just had it. As I just said, "Go." The droplet comes up, it's just open refine, running. I think that was my experience. I think, that's what it was. Those experiments where I said, maybe once or twice a month. I just check something out. Or, I'd actually just have to do something, just very real and critical, but it doesn't need to be up permanently. I think that's what I use the marketplace for.

[00:22:12] CQ: I've seen some amazing stuff in the various marketplaces. One of the early folks back, WordPress was one of the things that they wounded up shipping, was a company called Bitnami, or as I insisted on mispronouncing it, bittenAMI. What I found great about them was that you could just go ahead and grab the thing from the marketplace, sure a small premium that generally didn't matter that much in a business context. I didn't have to think about these things.

I didn't have to spend an hour setting up WordPress exactly as it should be done. I've run WordPress at large scale for hosting companies before. I don't want to deal with it. I just don't. It's these are sensible defaults, configured by someone who presumably knows what they're doing better than I do. You get to get on with your business. That's a powerful thing. The world is shifting and moving in a more up the stack, SaaS direction at this point.

I would argue, the next phase of cloud is going to look a lot less like, buy a bunch of virtual machines and string them together with your custom software. Instead, starting to tie together a bunch of disparate APIs, with either a low-code, no-code option, or building things that integrate

between different providers more efficiently. Serverless is going to play some part in that, I suspect, but I'm not here to predict the future. I love how DigitalOcean's type of offering works today. I hope they continue to go in this direction. I'm just worried by what their website says these days, because it starts to feel a very different thing.

[00:23:37] JA: Yeah. Yeah. I really hope they don't – I mean, if emulating the larger cloud providers means not paying attention to all of the things that I love about DigitalOcean, that will be a huge – Well, frankly, that'll be a huge opportunity for some other company, because I don't know. I mean, the last time I used Linode a long time ago was, I don't even remember it. I don't really know who DigitalOcean's – despite what they think their competition is, in my mind, I don't know who DigitalOcean's competitors are. That's probably because I don't really care, because they're doing whatever I need them to do.

[00:24:20] CQ: Right. Go and I click on above learning about the product and it tells me that you can have a bunch of different distributions; Ubuntu, CentOS, Debian, Fedora, CoreOS, and FreeBSD, which was my first operating system. Those were the days. Great. There are a lot of people listening to this that don't know what those things are and that's great. You don't need to. That does not make you any less of an engineer, or less of a developer. That's fine. For those of us who are looking for things like that and have angry, loud, obnoxious opinions about what distribution, or what operating systems to use, it's there.

Then, it goes directly down into ah, we have a benchmark, as the next thing they tell you about industry-leading price performance. They're doing a comparison on the performance story between DigitalOcean's offering, Google and AWS. I'm sorry, who cares about that? When I'm looking at, do I put this workload on AWS? Or do I put it on DigitalOcean? I'm optimizing for simplicity. Not, well, how do I wring the most money for infrastructure out of these things? Because let's be very realistic here, you're not going to spin up 10,000 droplets to host an application, if you're most customers. You want to get a few of these things up, they're going to be much more like pets, instead of cattle. You don't really care about squeezing performance out of it, because the cost economics blow themselves out completely when you start to realize just how much engineering time it's going to take to get up to speed with other providers. It's going in the wrong direction.

They still do a lot of great stuff, too. They have built-in cloud firewalls, for example. They have a backup option, where you check a box and it backs up the stuff you care about. Not, oh, you got the wrong volume. This is going to sound a little ridiculous, but bear with me. You turn on backups, and it just starts working and it costs 20% of the cost of the droplet band. Oh, wow. I can figure out how much that's likely to cost, and you're done. That's awesome.

[00:26:18] JA: Yeah. That is excellent. Frankly, my company is entirely bootstrapped. I just don't want to spend either money, or time having to deal with stuff. The use case that I have, is my guess, there's a whole bunch of – lots of DigitalOcean customers who are using it the same way that I'm using it, which is this and that. That's important. It's not like, I don't need to read a dissertation. I'm not interested in doing – If I was interested in productizing the tools that we build, for example, then I would go – I'd probably go somewhere else. Getting to the point where we would productize is entirely because of DigitalOcean, the way they have things.

[00:27:13] CQ: Absolutely. There's such value in having that simplicity and being able to articulate what they're doing and how. My use case doesn't fit super well with the larger cloud providers. When I travel, remember back in the days of travel, how wonderful that could have been sometimes? Yeah, the only computer I've been reduced to taking with me and I present at conferences from it. I wind up doing, running my entire business from it is my iPad. That's great.

My development box was fundamentally just a Linux box sitting in some cloud provider, because honestly, I don't want to hear the fans in my home office anymore. Let's put that somewhere with good connectivity, where I don't ever have to worry about hard drive replacements again, and call it good.

There's so many finicky things that you have to worry about when getting these things set up. Let's be clear, I don't know about your development practices, but mine are rubbish. I wind up writing code in one key way. It's a style guide here and that is badly. I look at these things and whenever I have a professional engineer come in and tidy up some basic tool that I wrote and turn it into something that's more, I guess, extensible support when they're asked, I said, "Great." This is the input. This is the output. That's really all I need to know. I don't want to look at your code base anymore. Follow-up question, do you want me to repeat – do you want me to replicate the bugs, or fix them as we go? Well, that's just hurtful, but thank you for asking.

Yeah. That's awesome. My development environment is I will install nonsense on my system. When if I need a new library there, and then well, that's going to stick around until I reimage the box, because I don't get done. Well, I can remove all those extra libraries I just installed by app, or DNF, or YAML, or whatever. It gathers croft and it becomes this bespoke unicorn box. If I had to go and provision the whole thing again, I'd start over with very few packages installed. For the first few days as I tried to build things, I would keep smacking face first to a bunch of dependency errors and figure out, "Oh, yeah. I have to install that thing again." That catches up with time.

Every configuration management option about, "Oh, you should just put this into a user data script, or use Puppet, or Chef, or Salt, or Ansible, or something like it, or you could Terraform all this stuff." It's, yeah. It's easier for me to type apt install thing that I want and whack at, or not think about it again, than it is for me to sit there and update a manifest somewhere and commit it to git and push it. I treat it very much like a pet. This aligns very well with the DigitalOcean story.

[00:29:33] JA: Yeah, absolutely. As you were describing that, I just noticed, I have 17 copies of a file called doit.sh on my DigitalOcean instance. I think that's good, actually. I'm going to go ahead and say that that's probably good. I think you're absolutely right. That's the thing about the getting shit done. I don't need to, for what we're doing, have to pay way more attention to the actual content, the purpose of what I'm doing. Again, I don't need to win any elegance awards, or any of the things that we do, none of it needs to "scale." None of it. None of it.

[00:30:16] CQ: Absolutely. The things we say, versus the things we do are worlds apart. That was my joy being a senior engineer, once upon a time. I would be talking to new hires, or interns and I would lecture them very sternly of, "Ah, remember everything, river cattle, not pets. Everything must be done programmatically, never by hand," as I begun the nine-month process of setting up my work laptop just the way I like it. We all do these things and that's how life works.

If I wound up having to reimage my Mac, sure I have backups. The data I actually care about is security. You don't get to be a sysadmin for very long before you really learn to appreciate the

value of backups. Getting all the applications that I use on a week by week basis installed, I'm still going to be tripping over things that I've missed for months. I got a new iMac at the start of the pandemic, because I hadn't had a desktop computer in 10 years. I was troubleshooting a weird network issue the other day and that was the first time I had to install Wireshark on this thing. Oh, great. Let's get that installed. Because I used to use that all the time.

These days, I don't really care about what's going on in the wire in most environments I'm in. Clouds lie about it anyway. I needed it and it was right there. Yeah, that's not going to sit on my drive, probably not getting updated until I replace the machine or reimage it again. That is the circle of life. That craft becomes load bearing and on some level, becomes comfortable.

[00:31:38] JA: Yes, full agreement.

[00:31:40] CQ: On some level, I have to admit, it feels a little disingenuous to have DigitalOcean included on my tour of the cloud series here. Because there's a strong argument that it is not a cloud. It's someone else's computer. Now there's that old saw, there is no cloud. It's just someone else's computer, which you may as well just finish with, "I'm very intelligent." Great. You have made a point that doesn't actually change anything and is not going to make anyone like you, or agree wholeheartedly with what you're saying. Good for you. You are the specialist person.

Now, here in the real world, the rest of us have work to do. It is a cloud in the purest sense, where I used to work in data centers. I've been in the environments where oh, we need a new server, great. We're going to expedite this, so it'll be here in six weeks. It takes time. It takes capital expenditures. Unless, you're doing some zany lease agreement deal. You have to clear space for it, make time to go to the data center, have someone else do it for you, get it provisioned, get it racked, lose four hours, because you forgot about the cable that wasn't working properly and put it back in the bin, and not. There it is again.

It becomes an unfortunate process mess, where now it's oh, I want to test something, out some evening at 2 in the morning, because I can't sleep for whatever reason. Usually, baby related. I want to spin something up and test it. Well, great. I can do that. I can spin up a node, install something on it and discover it a couple hours later, "Huh, that didn't do what I thought it was

going to do. Oh, well. Never mind." Turn it off. Turning it off is key in cloud economics. My total infrastructure cost for that is something like 26 cents for the experiment.

Conversely, theoretically, if I ever break character and come up with an actual good idea, and it becomes something that has legs as a SaaS product or something, that 26 cents investment at the initial infrastructure size, could at one point, theoretically grow to become millions and millions of dollars a month, like a lot of the hyperscale successful publicly traded tech companies are.

The fact that I have access to this type of tooling and rapid prototyping and iteration on the same type of infrastructure, with the same technology basis that I would responsibly and correctly run a very large, very professional bank on top of, that's powerful. There's no crap to good infrastructure transition here. I want to be clear, I don't even do DigitalOcean through that light either. At some point, if I were doing this on top of DigitalOcean, which is not a terrible idea, I would have to go ahead at some point, realize I've outgrown much of the platform and it's time for me to migrate it somewhere else that's more capable. There's no shame in that. Trying to say that, "Well, I'm never going to build something on DigitalOcean as a direct result of that itself, inherently becomes a early optimization." That's not helpful for anyone.

[00:34:25] JA: Yeah. Yeah. 1,000%. Again, from an economic standpoint, I mean, let's face it, there's – what I pay for coffee is way, way more on a monthly basis than what I do on DigitalOcean. If we were to ever have a gazillion users on applications that we're using, then great. I would never reach for any of GCP, or AWS, or Azure for like, I'm just going to mess with this. Because I already predict, I'm going to spend way more time dealing with the stuff that they need me to use in order to get the thing that is the entire goal of whatever I'm doing, than I wouldn't be then actually doing it.

[00:35:22] CQ: I think that it's difficult for me, even at the scale that I'm at, where I have customers in an aggregate spend billions of dollars a year on AWS. I don't know of any of my clients who spend more on AWS than they do on their own payroll. The people who work on technology are always more expensive than the technology itself. Unless, you're in a very strange, very interestingly structured company. If you're a very small startup, where you're basically, just starting to take a salary, or three people, and you're a data science company,

okay, great. If you have that data storage there and petabytes and petabytes, and you're paying yourself below market rate, okay, you're an exception. You're also generally not at a scale where I'm consulting with you folks. By the time you actually build this out and become a "big company" that changes. That inflects massively.

[00:36:11] JA: Yeah. I would be concerned if DigitalOcean's transition to a public company would be influencing. It seems probably, it's almost certainly true that their investors out in the world in the public market don't have some way of looking at one cloud provider versus another. They probably just all lumped them all together. Maybe that's why they're from their marketing, they're nudging in directions that at least, initially smell like AWS and Azure and GCP. I hope that that – I would like to stay as a customer. Keep doing what you have been doing that got you to be successful enough to become a public company.

[00:37:03] CQ: Exactly. Whenever I talk to people who are trying to optimize a bill like, "Well, I'm spending 500 bucks a month on AWS. I'd like to get it down to 300 or so." Honestly, unless you're about to just start hitting the scale button on this thing, you're trying to optimize so that it doesn't become absolutely massive, which is almost never the case, great. Ignore it. You are not going to cost cut your way to finding product market fit, to scaling, to building out something that is in any way, significant.

Either build the thing and make sure it works. You can always optimize it later. Because if it doesn't, then all the time you spent optimizing something was wasted time and effort. Get to your next feature. Launch that more effectively. It will be more transformative to your business than saving almost any amount of money on your cloud bill, in most cases. There's nothing inherently wrong with that.

[00:37:53] JA: Yeah. Some pathological drive to well, you have to be set up for success, set up for scaling early. I think that that's dumb.

[00:38:06] CQ: It is. It absolutely is. We tend to worship at that altar. One thing that I've noticed historically is that engineers are incredibly good at engineering. In many cases, they don't have the overall business context. Let's face it, as one of those engineers myself, I love solving puzzles. It's fun. Leave me to my own devices and I will cheerfully look at my $600 developer

environment in AWS, and spend a month of my time on the clock trying to find a way to knock 200 bucks off of that.

Great. That's fun, but that's more or less doing Sudoku at work, which is fine. It's a great distraction from time to time. You want to time box that, because at some point that's not going to appear on your evaluation.

[00:38:47] JA: Yeah. Yeah, that's unnecessary. I have enough problems with being addicted to buying too many books that I won't read. I don't need another. I don't need another distraction.

[00:38:58] CQ: Exactly. I don't want to come across as being too positive towards DigitalOcean. I think, we've been pretty even keeled here. What as a customer, have you seen from them that you don't like? What do you wish that they did differently from someone who cuts them a check on time and in full every month?

[00:39:12] JA: It's a good question. I'm not entirely sure. The downside of it just works and I don't have to worry about it is at least for them, if I don't find anything lacking, then if I'm trying to do a thing and I find that I can't do it with DigitalOcean, that time hasn't shown up yet. There's nothing that comes to mind about what they could do better. There's very little that comes to mind. Yeah, there's nothing that I would even waste any time talking about. What are we going to say? The 30 seconds at times it takes for a droplet to spin up is too long? I'm not going to complain about their pricing.

[00:39:59] CQ: 30 seconds. But I want it now.

[00:40:02] JA: Yeah. That would be the folks that want to complain as a past time. That's just not me.

[00:40:08] CQ: Oh, yeah. I want to be clear. A lot of what I'm saying is my own personal opinion on these things, is what I'm talking about here. If there are people who could disagree and do so quite reasonably in that direction. For example, it has full Terraform support. You absolutely can do infrastructure as code on top of DigitalOcean. I just don't know too many people who are actually doing it is all. You could, in theory, build out a very large scale site on top of DigitalOcean. I'm sure some people have. They did not make hundreds of millions of dollars in

revenue last year from just a whole bunch of developers each running $5 droplets, let's be realistic with ourselves.

There are clearly things there. I just don't see it in my ecosystem. That's okay. I speak to generally, a fairly specific customer profile and running very large environments on DigitalOcean is not that.

[00:40:57] JA: Yeah. Although now, if I were to say just as a member of this community, if they wanted to compete with the scale, the AWSs, the GCPs and the Azures. If they can do that without messing with, or decreasing the attention that they give to the services that I'm using, yeah, more power to them. Fine. Great. Even a temporary addition to the competition of the big three, sure. I'm sure that that would probably be fine. I'm just not interested in it.

Yeah. Almost certainly, there's at least some large customer. I don't know who they are, some large customers. They're certainly the largest, whoever that is, at DigitalOcean. Like I said, I don't know. I wouldn't reach for DigitalOcean if I had really high confidence, and the intention of spending VC money on scaling roller coaster style. I just don't want them to change.

[00:42:08] CQ: I think that we're directionally correct on this. I just clicked on their sales page, the contact sales and a bunch of mandatory questions. One of them is, what is your estimated spend going to be? The top tier is above $2,500. I'm a consultancy that doesn't really run a whole lot. I have no production workloads that are critical path or anything. We have a few terabytes of data we have floating around that we do some analysis on, sure. Our total spend when all is set and done for internal tooling is about that on AWS.

If that's the top tier, it tells me that that pricing discrimination like that as far as what bracket you put yourself in, by when you start talking about actual dollars and cents, that is positioning and you start bucketing yourself into how people should be thinking of you. At enterprise scale for IT spend, if someone pulls that up and sees that as the highest bucket, the default response from a psychological point of view is, "Oh, never mind. They're not serious."

I've worked with DigitalOcean. They are serious. If I needed for some reason, to have a product where the correct answer was 2,000 droplets, provided that they have the capacity and the

throughput to do it, which I have no reason to doubt, they're a perfectly viable option. Yeah, that's going to cost way more than their top-end call for details support tier. Part of me wonders if that's not doing them any favors.

[00:43:25] JA: Yeah, yeah. How many cupcakes do you want? How many pallets? How many trucks of cupcakes do you want? Those are two different things. Yeah, yeah.

[00:43:35] CQ: I like to wind up having some baseline pricing that makes sense. There's always, always, always got to be the call for details tier. Because when you're a big enterprise, and you're going to buy a lot of things, you know that there is no standard pricing, click through agreement for scale that you're ever going to use. There's going to be custom deals negotiated. Even with the cloud providers, none of these big customers are paying retail price. Full stop. If they are, they're missing a very key point. Discount is tied to volume. Who knew?

[00:44:03] JA: Yeah. Yeah. Exactly. Corey, I can't imagine that DigitalOcean would be a target for Duckbill. Just seems like, it's entirely – It might as well be just a completely different business.

[00:44:19] CQ: Credit we're due. In years past, they have sponsored some of my nonsense, and they did for a while, because it turns out that well, why would DigitalOcean sponsor an AWS newsletter? Yeah, because you know who AWS customers are? Everyone. You know who DigitalOcean's customers are? Those exact same people. It's not either or. In fact, that is the one time I've gotten actual pushback from my newsletter over a sponsor that I included. Someone at AWS, who is no longer there, in their sales group reached out and sensed that I had a non-partner sponsoring this. If I was not going to pick one of their partners to sponsor, who was aligned with their go-to market strategy, then this person was going to stop recommending that people subscribe to the newsletter.

First, I found myself having to remind AWS people every time, I don't work for you, first off. Secondly, oh, if you would like to sponsor or have some of your partners sponsor, great. Here's my media kit. Let me know. Again, as long as it's not going to harm people who are reading my newsletter, if they implement whatever it is it's advertising, I tend to be okay with it. I'm not being prescriptive, or exclusionary in that respect. I am thrilled to have reasonable products that do

good things, advertising to the market. That's fine. That's how this works. I'm not going to sit here and worry about that.

It also just blew my mind, because this was very early days. It's you're Amazon and you're worried about competition from DigitalOcean? How insecure are you? I mean, you folks waste more than that on your banana budget than their entire market cap. How does that work?

[00:45:54] JA: Yeah. Well, it sounds like that sponsorship way back then touched a nerve.

[00:46:00] CQ: It did. Honestly, I'm quite okay. We'd do it twice again, if I could. Again, most of my sponsors follow the DigitalOcean pattern. They sponsor for a while, and they don't, then they come back for a while, then they don't. There are very few publications that have one recurring sponsor that has been there for eight years. People want to rotate out, try different things, keep it fresh. Again, they're welcome to come back. If not, that's fine, too.

I have no ill will toward DigitalOcean. I feel like, someone there's going to be sitting there seething listening to this saying, "Oh, he hates us and he's mean to us. How about we go to his house and kidnap his dog?" First, I don't mean it to come across that way. Secondly, she's a Chihuahua. Please. She's awful. Take her off my hands.

[00:46:39] JA: Corey. Look, here's something that I know about you. If you don't think anything is worth your time, you don't say anything about it. The worst thing that you could do for a company is to not mention them at all.

[00:46:52] CQ: Oh, yeah. I'm picking five companies to talk about this week. They were one of them. They were to be very clear, right near the top of the list. When I was putting together my list of initial, who should I talk about and who shouldn't I? Because they're great. I love what they're doing.

[00:47:06] JA: Yeah. It's swinging a heavier bat. If I were to start, let me go on the record to say that if I were to start some bananas idea of starting a cloud provider company, the first OKRs, or whatever goal would be, how long does it take for Corey Quinn to acknowledge us? Even with absolute shit-talking comment, that would be a win.

[00:47:34] CQ: Absolutely. Again, I've always said about sponsors, is that you can buy my attention, you cannot buy my opinion. I don't care how much money you throw at me. It's not going to be enough to offset my credibility. I would use DigitalOcean for a number of projects. In fact, having spent the past hour talking to you about this, I very likely will again soon now that they're top of mind for something I'm thinking about. Again, customers come, customers go, and it's fine.

Hopefully, this has been helpful for folks, and they have a bit more insight into what DigitalOcean is, and how at least we think about it. People already know where to find me. If people want to yell at you for your terrible opinions today, and they're very angry about it, where can they find you?

[00:48:16] JA: You can find me on Twitter, where lots of yelling happens. I'm @Allspaw on Twitter.

[00:48:23] CQ: Excellent. Thank you so much for taking the time to speak with me about DigitalOcean. It's always fun having conversations like this one.

[00:48:31] JA: Yeah, thanks for riffing with me.

[00:48:32] CQ: John Allspaw, Founder and Principal at Adaptive Capacity Labs. This ends today's tour of the cloud. If you've enjoyed this podcast, please follow me @QuinnyPig. That's Q-U-I-N-N-Y-PIG on Twitter. Head on over to lastweekinaws.com and subscribe to hear more from me and my podcasts, the AWS Morning Brief and Screaming in the Cloud and of course, my newsletter Last Week in AWS. Thanks for listening. Make good choices.

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