

# What Developers Really Want

CLOUD  FOUNDRY

Developer Series

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*This is the second in Cloud Foundry’s ongoing “Developer Series,” which is based on custom qualitative and quantitative research about developers and how they fit into an increasingly complex software and cloud-oriented world.*

Enterprise developers have taken center stage as more organizations recognize the need for digital transformation—but do they deserve all the attention? Are developers involved in the process of technology evaluation and do they have decision-making power over purchases within their companies? What are the needs of developers? And how can we cross the chasm of communication between business and technology to reach developers?

Cloud Foundry Foundation set out to answer all these questions—and more—with the fifth wave of our Global Perception Study<sup>1</sup>. The first leg of this study involves focus groups with enterprise developers around the world<sup>2</sup>. Below are some key findings from this primary research.

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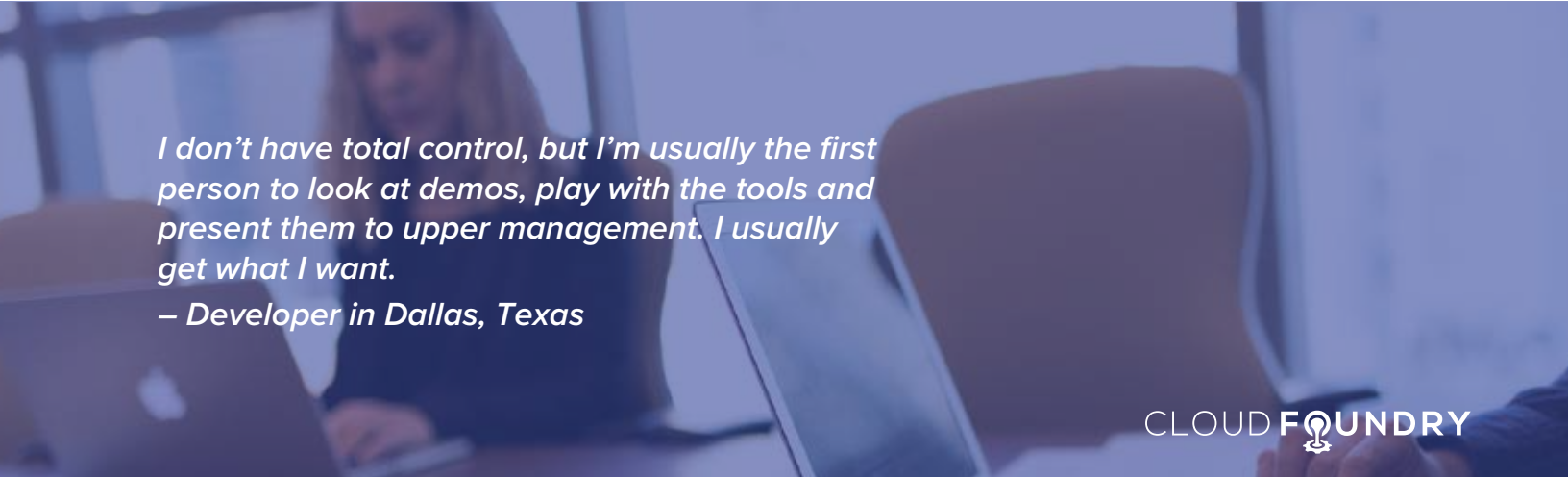
<sup>1</sup> The Global Perception Study series is a series of qualitative and quantitative deep-dive research on topics critical to cloud and developers. Find our last report on “Identifying the Developer Gap” [here](#). Though the qualitative research presented here is necessarily preliminary, the quantitative stage begins in the coming weeks, during which we will test these and other hypotheses to see if they bear out. We will make the results public in Spring and Summer 2017.

<sup>2</sup> We conducted six focus groups in three locations with enterprise developers—two groups each in Dallas, Texas; Tallinn, Estonia; and Delhi, India. For more details about our recruiting methodology please contact Devin Davis at [ddavis@cloudfoundry.org](mailto:ddavis@cloudfoundry.org).

# Finding 1: Developers are an Important Part of the Evaluation Process

Developers play a central role in the software evaluation and purchase decision process—and they know it. Our respondents express a high degree of control, especially over the early stages when they are first considering which software to evaluate (64 percent feel they have control over this stage) and then actually evaluating the software (67 percent). Control of the process dips slightly after the evaluation stage, however, when more control lands in the hands of managers and architects. Yet even when it comes time to make a purchase decision, a majority of enterprise developers feel they have control (55 percent).

Discussion in one of our focus groups in Dallas, Texas, yields this sentiment:



*I don't have total control, but I'm usually the first person to look at demos, play with the tools and present them to upper management. I usually get what I want.*

*– Developer in Dallas, Texas*


## Finding 2: Developers Value Freedom and Creation – The Process and the Outcome

For many developers, passion for their chosen field started early—it was fun getting a computer to do what they told it to, or building and creating something and watching the end result *just work*. Creative process and satisfying results are equally important for most developers, and so it is no surprise developers would rather be coding than doing anything else. Scrum meetings, app maintenance, team management, deployment and all things ops: these are the things they would limit or remove from their lives, if they could.

It is this “Freedom to Create” that drives developers above all else. In fact, two of the top three identified values selected as “important”<sup>3</sup> by 81 percent and 91 percent, respectively, are “*Freedom*” and “*Creating*.” This includes the whopping 53 percent majority who scored Freedom as “very important”—the highest possible rating. It is in this vein that developers rate “faster tools” very highly (88 percent “important” and 40 percent “very important”). Anything to give them more time (read: freedom) to create is a high value target for developers.

Developers want to focus on solving interesting problems and will do what they can to avoid processes that impede the most interesting parts. Some of the best tooling actually puts constraints on what developers do—but somewhat ironically, given developers’ intense value placement on freedom, these constraints enable more creativity (and even freedom, down the line) as they streamline less interesting requisite tasks. Platforms are a perfect example of a constraint that expedites the overall process, giving developers what they really crave: the freedom to create.

The developers in Delhi hit this point home:



*Freedom is a primary requisite. My tools, code, cool projects—all those things cannot be there if freedom is not there.*

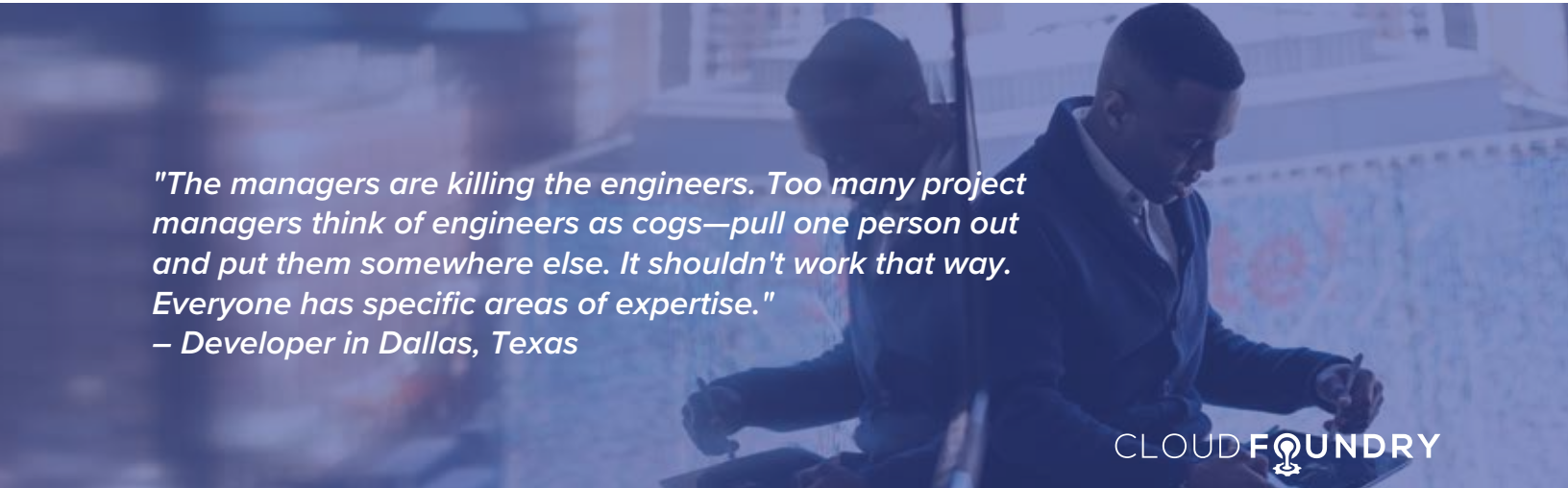
– Developer in Delhi, India

<sup>3</sup> The Global Perception Study series is a series of qualitative and quantitative deep-dive research on topics critical to cloud and developers. Developers were asked to rate each word/phrase on a 5-point scale, with 5 meaning “very important” and 1 meaning “not at all important.” Scores of 4 or 5 are considered “important”; 1 or 2 are considered “not important”; and 3 is considered “neutral.” All percentages referenced here are percentages of developers who participated in our focus groups. The nature of the research is qualitative, and these percentages should not be interpreted to apply to all developers. We will follow up with a quantitative study to explore these hypotheses and preliminary findings.

## Finding 3: The Developer Life Can Be Dehumanizing

Enterprise developers are human, but like anyone working in a large company, it is easy for them to feel like just another cog in the wheel. But it's even more difficult for developers who see themselves as "creative" types to be put on and taken off projects on a whim—which feels akin to an artist being told what to paint. It's not too far-fetched to suggest they might identify with assembly line workers (albeit a modern day, highly-skilled version), treated more as a commodity and less as a valued resource. The question is whether the looming global shortage of developer skills will exacerbate this situation when companies hire thousands more developers to be more "cogs in the wheel"—or whether the acknowledgement of enterprise developers' value will grant them the *freedom* to call the shots in ways they can't today.

Developers in our focus groups do not want to feel replaceable:




*"The managers are killing the engineers. Too many project managers think of engineers as cogs—pull one person out and put them somewhere else. It shouldn't work that way. Everyone has specific areas of expertise."  
— Developer in Dallas, Texas*

## Finding 4: “My Tools” Are Not That Important

Interestingly, while the concept of “freedom” is important to developers with regards to creativity, most developers are not choosy about which tools they use. For example, enterprise developers are not focused on the idea of using “my tools”—or the tried-and-true frameworks individuals return to again and again for their projects. Only two percent of developers selected this as one of their top three most important convictions from a list of 13. Compare that to the 51 percent who chose “freedom” and 37 percent who chose “creating” as one of their top three, and we can conclude that “freedom” and “creativity” are not tied to a developer’s personal toolbox. Developers seem to recognize the need to use different tools for different jobs and are not loyal to a specific set of tools. Most developers have a handful of go-to tools for each job, but primarily they use what is provided or permitted by their company.

Similarly, a majority (63 percent) consider “cool tools” to be important, but these enterprise developers—as opposed to more leading/bleeding-edge developers—are less focused on the “latest and greatest.” They’ll gladly play around with a new toy, but they won’t make real use of it until it hits a critical mass of attention on Stack Overflow, for example.

The focus group in Tallinn explains the rationale behind their choice in tools:



*It’s just common sense: We use whatever makes the most sense.*


*– Developer in Tallinn, Estonia*

# Finding 5: Speaking to Developers Means Speaking *To* Developers

The developers in our focus groups expressed irritation about the following:

1. It is important to speak *to* developers, not *about* developers. Talking about business goals and revenue generation and how all companies are becoming software companies—that's all well and good, but it's not relevant to the actual world of the developer. It's not speaking to them. What is in it for *them*?
2. Developers are more likely to listen if what you are saying is *relatable* to their world. Don't try to simplify their challenges. It is more complicated than that, and they want you to acknowledge it.
3. Let them play. They want to know how things work and how they would work for them. They may not make immediate use of your tool, but the only way they'll know if they like it is if they can play around with it.

Developers around the globe are enthusiastic about the open source platform that actually helps them accomplish what they want to do as quickly as possible so they have the freedom to create later:



*I would love to find out more about Cloud Foundry. Ambitious ideas matter; people are doers. I believe in all of that. That's true actually.*  
— Developer in Delhi, India

*Speed is important. You don't want to waste time. The business is waiting, the code is tested and waiting... You are just waiting for infrastructure.*  
— Developer in Dallas, Texas

## Finding 6: Developers Need Help Keeping Up

Change happens so quickly within enterprise IT. Developers—especially junior developers or the ones we met in ultra competitive India—feel threatened by the pace of change. They struggle continually to stay relevant and are always looking for ways to keep up their skill set and advance their career. “My career” scored right up there with “freedom” and “creating” in terms of what enterprise developers place importance on (86 percent “important,” including 49 percent “very important”).

This is why training and a solid developer certification are so important. As we found in last year’s [“Identifying the Developer Gap”](#) report, companies increasingly choose training, rather than outsourcing or hiring, to keep up with the growing need for more developers. A developer certification, backed by a good training program, can go a long way, both for developers and companies looking to stay ahead of the game.

Developers in every focus group express concern around being replaced by new talent. Training and certification are practical solutions that reward both developers and their organizations.

*We can see our competition. Everything is moving fast. New tech is here. We have to upgrade ourselves. We have to follow the pace.*  
– Developer in Delhi, India

*The new techies will be more equipped and skilled. They will easily replace us.*  
– Developer in Delhi, India

*A developer today is doing way more than they would have done five years ago, and five years before that. Days used to be spent on things that are a 1-hour API call today. So there’s an expansion of the role, and there will be a shift. What we’re seeing with autonomy and AI—we are going to have more machine learning and developers will lean there because that’s where the edge is. Some of what developers do today will be eaten by automation, and it will continue leading toward more intellectually challenging development.*  
– Developer in Dallas, Texas



# Conclusion

Cloud Foundry is a platform designed to make the professional lives of developers run more smoothly—which is exactly why we sat down with enterprise developers face-to-face to find out what they need, what they want, and what they fear. Our findings confirmed that developers are a vital part of the technology evaluation process within their companies, because they're the ones using the tools in development. Developers are driven by a desire for freedom and creativity within the development process, and don't mind constraints (ie. a platform), as long as those tools expedite the process and grant greater creative freedom down the line. Developers don't care so much about which tools they're using, as long as they get the job done.

As change continues to sweep through enterprise IT at a never-before-seen pace, developers feel pressure to keep up their skill set, even as they identify as creatives whose unique abilities render them irreplaceable. Training and certification are essential for developers who want to be equipped with a valuable, marketable skill set and a certificate that can boost their resume, expand their technological knowledge and enable them to flourish in a quickly changing industry.