



Video Transcript

Keith Pleas, Software Engineering Ecosystem Director, Accenture, and Mirco Hering, Global DevOps Practice Lead / ANZ Modern Engineering Practice Lead, Accenture and author of *DevOps for the Modern Enterprise*

***DevOps for the Modern Enterprise* author Mirco Hering**

Speaker 1: Agile Amped is your go-to source for inspiring conversations on topics from empowering teams to thriving in the digital age. This podcast gives you access to expert advice you can trust from the largest source of agile thought leaders. Agile Amped is brought to you by SolutionsIQ, an Accenture company.

Keith Pleas: Welcome to another edition of Agile Amped. I'm your host, Keith Pleas. And we are podcasting from the DevOps Enterprise Summit 2018 in Las Vegas. Today, my guest is Mirco Hering all the way here from Australia. Mirco, pleased to have you here.

Mirco Hering: Thank you, Keith. I'm very happy to be here.

Keith Pleas: And one of the things that we're going to talk about is you have a new book out, *DevOps for the Modern Enterprise*.

Mirco Hering: Yes, I do.

Keith Pleas: Can you tell me a little bit about what motivated you to write this book?

Mirco Hering: I will try. So originally I was not necessarily sure that I would have something unique to say about DevOps. I mean, there's a new, go past the booths here of the conference, there's dozens of books in this space. But I figured there's two topics that are not well covered. One is how do you actually transform an organization that has a lot of legacy IT and legacy processes? So that's basically my reality every day. And the second one was how do you work in an organization that has different technology vendors, different system integrators, and how do you make that work and help with the transition? And again, given that that's my daily work, those two aspects are what I explored in this book among others. And I think that's created the unique opportunity for me to write a book.

Keith Pleas: Okay. And so it could just as well be agile DevOps?

Mirco Hering: Yes. Yes. Agile is covered in there as well.

Keith Pleas: Okay. And you mentioned IT organizations, does this also impact their business customers?

Mirco Hering: Yes. One of the early reviewers is a CIO of a company in Australia and he gave me that feedback and like, "I wish that book would have a little bit more on the business side because that's kind of the next barrier that we are trying to break down." And I agree. So this is still written more of as a CIO in mind than it is as a CEO, but nowadays the conversation is shifting very, very quickly to the CEO these days or to the business.

Keith Pleas: And so in your work in Australia and Asia Pacific, how tightly are these capabilities integrated or are enterprises putting everything in very distinct silos or do you have cross-functional teams?

Mirco Hering: Yeah, so I think we are seeing, first of all, our client base still has everything on the maturity scale so from really super siloed to integrated. But the more forward looking ones are integrating and, in my view, a very useful way. So they're starting to think about really DevOps teams, where you have development and maintenance in the same team. And now the product owners for the agile teams are more and more coming directly from business. So they used to be that there were product owners from IT who would represent business. And now more and more, we see IT actually moving to the business, which is perfect. We want these value stream enabled teams rather than project teams.

Keith Pleas: And what are the typical organization sizes that we're talking about here?

Mirco Hering: Again, they go from relatively small, we're not working with tiny companies, but we might be in where the IT organization is in the hundreds, low hundreds, all the way up to a hundred thousand so it's a pretty broad spectrum.

Keith Pleas: That's enormous.

Mirco Hering: Yeah.

Keith Pleas: And what patterns, you said that the more forward-looking companies, how would you identify a more forward looking company? Is there...

Mirco Hering: Well, you kind of have to be in there to see it because from the outside, if you just speak to someone for half an hour, they all sound the same. Every organization these days say they're doing agile and DevOps and they all have post-it notes on the wall and they all have Jenkins somewhere. So you kind of have to get in there to really understand whether they are. There's a lot of terminology engineering where we just rename things so that we are looking cool. So we have now SREs, which are basically still the same admins they were before and we have product owners that used to be project managers.

Mirco Hering: And so you really have to get in there to understand that, but once you're in, you very quickly pick up on whether they have a forward-looking culture that is about learning and adopting and experimenting. Those are the ones that are kind of making this transition or whether it's still very top down, we're going to redesign the

organization and then we're going to implement the Spotify model for example. Those seem to be, that's middle state, they're changing, but they're not necessarily changing to that proper end-state or next stage.

Keith Pleas: Okay. In fact, in your title, you have modern enterprise, would that include even, let's say government organizations, is there a way to identify what's a modern enterprise?

Mirco Hering: Well, I mean, government, I think there are quite a few government agencies that are very modern. I've spent some time in Singapore and they have very, very forward-looking IT departments. There's actually, at All Day DevOps, the conference last week, there was someone speaking from Gulftech from Singapore about their containers and SRE experience so very forward-looking. In Australia, we have very similar to what you guys in the US have so there was a digital agency set up to help the government. So I think it's not exclusive, you also seeing what didn't happen for many years, we see resource companies, so oil companies, mining companies, picking this up now. So I think we have reached the mainstream.

Keith Pleas: Okay. Is there one industry segment that's far and away ahead there that you can think of?

Mirco Hering: It used to be that the telcos were pretty early. Nowadays, I see, I spend most of my time with financial services, to be honest. And that's not surprising because I think the digital disruption is kind of most felt there with things like TransferWise or other alternative banking models. So

they're all really heavily trying to transition into an agile organization.

Keith Pleas: Okay. So if the world is changing to include agile and DevOps, and then you've got your enterprise engineering practices and so on, what kind of a person, what kind of a skillset, is going to do best in this world?

Mirco Hering: The person that wants to continue to learn. There's no doubt to me that that's the number one skill, because nothing that you do is set in stone these days. And I mean, you just have to go through the exhibition hall at a conference like this, every year it looks different. There are new vendors with exciting solutions. So I think what we need to know is that everything will continue to change and that we need to continue to evolve. So don't see it as a, if you go to uni these days, it's not a matter of getting that degree and continuing working in that space for the rest of your life. It's you learn how to learn, and now you need to use that for the rest of your career to continue to evolve.

Keith Pleas: That sounds great. What do you use to learn yourself?

Mirco Hering: Well, conferences like this obviously, but I'm a bit of a nerd. So if I want to understand a topic, I need to find something that is sufficiently deep. So I love Coursera because you can get a university level course. I did this, for example, for blockchain, because all the stuff that I found online and blog posts and so forth gives you nuggets, but they don't give you that deep understanding. So Coursera is really good if you want deep understanding. And then nothing

beats on the job, let's be honest. So the best thing if you want to learn something new is actually doing it in practice. And so that means for me, it means figuring out where we have a project where I can use a new technology or a new tool or anything like that, and then actually doing it.

Keith Pleas: And are you saying that you write code yourself?

Mirco Hering: I try to. I'm probably what I would call an over the shoulder programmer. So that means I'm looking over the shoulders of the guys who are actually writing the code and asking lots of annoying questions and then sometimes grabbing the keyboard and try it myself. But of course I'm not spending hours on it during the day writing code, that's on the weekends and at home.

Keith Pleas: Okay. So if somebody were, you mentioned uni, which I guess is equivalent of our college, right?

Mirco Hering: Yes, correct.

Keith Pleas: So for somebody who is in IT in college or whatever that equivalent is, what would you recommend that they focus on for a career in IT?

Mirco Hering: Yeah. Look, as I said, I think the bit that is really important for your career is that you have a broad set of skills. So I think it's good if you can get some non-IT courses. I did a degree in artificial intelligence back in the day, but there were a couple of courses of psychology. And I think that stands me extremely well at the moment, because I heard that the other day in a podcast

where they spoke about the core elements that are going into a transformation. And they said, "One thing that you need to understand is that the tools, techniques, and all those, are only one of the components that you need. The other part is you're always dealing with people." So you need to understand how you can get through the biases, the perceptions, the motivations of people, if you really want to transform something. And so that I think is super useful if you have that.

Keith Pleas: That's interesting. I actually have a psychology degree from way back.

Mirco Hering: There you go. You're well set up, Keith.

Keith Pleas: Okay. So you mentioned blockchain a minute ago. So what are some of the technologies that are impacting these enterprises today?

Mirco Hering: I mean, so I think, I mean blockchain, everyone is talking about, and I think blockchain will continue to be relevant, but for specific solutions. I think slightly broad applicability is for AI. I do see that as a kind of the next level of analytics, where we use data to learn and evolve. There was actually a really good talk at the conference today where they spoke about the areas where AI can be helpful. And then there's these kinds of short term solutions, things like chat bots and robotic process automation that I think we will see for a little bit, but then they will wane again. So I wouldn't necessarily bet my career on that.

Keith Pleas: Well, what would you bet your career on?

Mirco Hering: I'd bet my career on AI when I finished uni and that didn't help me at all. I see a second coming of that at the moment so perhaps that will be something that I will bet. I certainly am excited about that and spending more time with these days. But at the end of the day, it's organizational change and figuring out how you can do that will continue to stand you well, because we will never stand still anymore. We all understand that there is no end state organization or end state architecture. So anything in that space is going to help you.

Keith Pleas: So you mentioned the word analytics, and this is something that didn't exist when I was in college, but the idea that we need some evidence versus I think I want to, or it sounds cool, or I have a hunch. Is there still a place for a hunch and judgment or experience in here or do we have to have data for every decision?

Mirco Hering: I mean, everyone says that we should be data driven. And I think data is still under-utilized. So there's still a lot of data out there that we could use to make good decisions that we are not. But I also think the human element needs to continue to exist. I was working with a client that is going through a big transformation and they're using agile. And what happened is that the specific prioritization scheme they had used forced them very much down the data path and halfway through their timeline, they realized that they didn't spend enough on the other parts of the transformation that were required. That a good product owner would've been able to say, "Well, yes, I don't have the metrics for it, but it's important that we

are picking up our people, that we are transforming the way that we are perceived by our customers." So I think there will always be an element of human decision-making involved.

Keith Pleas: Okay. You also mentioned, you said the Spotify model so this is where we look at the cloud native companies. And do you think we can actually learn from them or is that just a dream? Is there something that we can truly benefit from these folks?

Mirco Hering: We can learn from them. We can't copy them. And I think what is happening at the moment is that very often people are trying to copy them. Many of my customers say, "Oh, we want to be the Netflix of... The Netflix of banking or the Netflix of telecommunications or whatever." And that's not the right answer because there are the very specific context that these organizations have grown up in. And what we should do is we should learn what they've done and then figure out how we can apply some of these ideas in our organizations. And it's not the blind copy that will work, it's the, "Oh, this is how experimentation has helped them. This is how it decoupling the architecture has helped them. This is how they kept control in a very diverse environment." Those are things that organizations are struggling with and can learn from, but it's not a straight copy. And I think a straight copy can very often hurt.

Keith Pleas: Okay. And one of the first things you mentioned was legacy IT. And now to a new hire, legacy might be what you did last year. How do you define

legacy IT? And maybe more importantly, how are our clients defining it?

Mirco Hering: Yeah. I mean, my definition of legacy is very aggressive. For me, legacy is anything that you wrote before yesterday. Because at the end of the day, legacy just means it's something that potentially needs to change again and I think that's just everything we do these days. If you look at the organizations, true legacy means it's something that is now hard to maintain, and is not necessarily evolving anymore. And I'd say, if you look at the speed of how often we've changed something for actual functionality, if that kind of drops off, then we're talking about a legacy application. That's what I tell my clients, how they can identify it. Because then at that point, when you know that you're not changing it anymore, you're going to stop investing, you're going to have less and less people having knowledge about it. And that means at some stage, if you need to change it, or if you need to replace it, it will get harder and harder.

Keith Pleas: Okay. And you must have experience with some of the major systems like ERP systems, like SAP, would you consider those legacy?

Mirco Hering: Very often they are because they've been implemented, they were the big implementation curve at some stage where they spend a lot of their creative energy to install it and customize it. And then they didn't the same level of investment so they became legacy. It's not a technology question. It's how much change and how much IP you have in your organization to maintain it.

Keith Pleas: Can these legacy systems benefit from agile DevOps?

Mirco Hering: Absolutely. Very often the question gets asked the wrong way because the question gets asked if you want to be DevOps, should you use a COTS product? Well, that's not the right question because very often COTS products provide functionality that you can use in your business directly because you don't need to do big customizations on it. That's the benefits of some of the SaaS products as well. Now you won't be as flexible as you can be with custom development applications. So if you want to be truly DevOps and that's more important than your business outcomes, then do everything custom. If you know that COTS products can provide certain functionality for your business, then you can still use agile and DevOps practices to make that as efficient as possible. But what I don't like is the separation where we say, "Oh, these are legacy or COTS product so we're not going to use agile or DevOps because that means we're using what we know is substandard practices only because it's harder there." And I think that's just a cop-out.

Keith Pleas: Okay. Now we've used the word agile quite a bit, and we have Agile Amped in the name of the podcast. Can you tell me, what's your favorite flavor of agile?

Mirco Hering: See, I've gone through phases, to be honest, where I do have a scrum and a SAFe and there's DAD and a whole bunch of others. To be honest, the Agnostic Agile manifest or website is kind of what I like, which is we're using the tools that are given to us in our

context to solve the problems rather than determining a specific methodology. So I think that's a way to go. I think you can, especially when you start, it's really helpful to pick up a methodology and align yourself with it because it provides a lot of guidance. But then as you're getting more experienced, as you're starting to find your feet, then it's time to adopt things and figure out what other tools can I experiment with and try to see what best works for my organization.

Keith Pleas: Okay. And you've mentioned tools.

Mirco Hering: Yes.

Keith Pleas: Do you have any favorite tools? Are you certified in a tool? How important is that to you?

Mirco Hering: I'm sure that I still have a certification from when I thought it was important. Nowadays, I don't find that a certification in a tool terribly useful. Most of these tools, and this will sound horrible, but they're not that different. Whether you use one tool or another, they have very comparable functionality often. It's much more important that you have the knowledge that you can actually customize it for your problem and that you have a good support structure so that you can actually work with the vendor in a positive way and that it's easy to adopt for your users. So that's kind of what matters.

Mirco Hering: And then it's looking at your ecosystem and understanding what you have. What I really get frustrated with these days is people have a certain tool and then they determine that their

problem is with the tool so they're just going to replace it with another tool, hoping that that will change their problem and it doesn't. I've never seen that work because it's usually not the problem with the tool. It's a problem with everything around it, the processes, the architecture, those kind of things. It can help, when you use that change from one tool to another, to also inject a lot of energy and motivation. But if you just replace one tool with the other, you usually don't solve big problems.

Keith Pleas: Okay. So you must've done a lot of interviewing for your practice. What are the most aspirational... What are the things that you look for in folks that would make good agile DevOps consultants and project managers?

Mirco Hering: Now I give away the secret sauce. Because one of the things I notice is that people that you interview these days, they do a pretty good job in figuring out who you are from your social media and so forth. So they can quote you back to yourself, which I personally find a bit weird. But the two things that I look for is we're doing case studies in our interviews. So that means we're asking them to solve a real problem and I think that's a very powerful way because I don't need to ask them about what skills they have. I want them to use it. So can they do that? And can they also talk about it and expand it because communication in a consulting business is super important. So is that's one thing. And then the second thing is what are they doing to continue to learn? What are the blogs that they are following, what are the books they've read? So questions like, "What was the last business book you've

read?" Are usually something that comes up in our interviews and then having a meaningful conversation about that.

Keith Pleas: All right. And I've got to have to ask a question where does open source fit into all of this? You mentioned social media and where they might go for things. Has open source changed the way engineering has happened with your clients?

Mirco Hering: I mean, I see it definitely a lot more than I used to. So open source has certainly taken quite a bit of mind share in companies and I think that's good. It just means that we need to also understand how to deal with it better, and that's everything from security to support to IP, before we jumping into it. I think it's going to continue to be a very, very crucial part. I think we're not yet at the point where we understand what it fully means. And if you go to DevSecOps days or something like that, you do get a lot of that information around how much vulnerability is in there if you don't manage it well. Because open source is great as an accelerator, but you also need to maintain it. And if you look at the Equifax example, for example, you can see that the known vulnerability still gets downloaded for a very long period of time before people have completely switched it out. And that's worrying. So I think we need to understand with that power comes a lot of responsibility.

Keith Pleas: Now, do you think that there are people that are listening to this podcast who are trying to improve their knowledge and so on would be some of those same people that are still using that outdated Struts package?

Mirco Hering: It's very much possible because I would guess many organizations actually don't know. If you ask them about all the libraries that they're using in an organization, I'm not sure they have that data. Which comes back to your earlier question, there's still a lot of data that we are not using well.

Keith Pleas: All right.

Mirco Hering: And I think this is one of them.

Keith Pleas: So to be successful, somebody has to understand data and analytics. They've got to be agile. They've got to have an engineering point of view. They need some security training. They have to be good communicators.

Mirco Hering: Psychology skills.

Keith Pleas: Psychology, is there anything else? I mean, this is a-

Mirco Hering: The bar is high.

Keith Pleas: Pretty special person to be successful in IT today, right?

Mirco Hering: Yep. But look, it sounds scary when you mention it like that, but reality is you need a little bit of skills in most of these areas and then specialization somewhere. So if we're not expecting you to be a psychiatrist, a security engineer, a UX engineer, a cloud engineer. We're expecting you to understand how cloud principles work, what's important about security, and that you're a good team player. Because realistically, when I get into security

areas, I know enough to ask the question, but then I'm going to start calling my friends who are security experts. It's a team sport. It's not an individual sport.

Keith Pleas: That makes sense. So I'm going to ask you one more question. If you were to write another book 20 years from now, what might the title of that book be?

Mirco Hering: That's an interesting question. Now, the cop-out answer would be Modern IT: a Retrospective. It would be cool to look at it, especially if I look at what I predict now and whether it actually played out. But I think in 20 years, we're going to talk about organizational structures that have been enabled by the cloud. So I think we will see less and less these huge organizations that we have right now and we see a lot more smaller ones. And it's going to be how do you still have cohesion when we now have all of these small startups, all these microservice based teams in large organizations, and how do we still get that organizational culture that we are now used to?

So now, if you join any of these big companies, you have a pretty clear culture and that's because you're going to the same offices. You have the same kind of systems that you're dealing with. You have a lot of shared context. How do you enable that, now 20 years in the future, when everything is these kind of small decoupled systems. So that I think would be what the book is about, how can we bring some of the good old company culture that we were used to into that kind of fragmented world?

Keith Pleas: Well, Mirco, thank you for that. And I look forward in 20 years to being able to reflect on that and see how close we came. So Mirco, I appreciate your time today with us and for talking about some of the stuff that informed, went into your DevOps for the Modern Enterprise book. And for those of you listening, thanks for listening to this edition of Agile Amped. If you learned something new, please tell a friend, coworker or client about this podcast and subscribe to hear more inspiring conversations. Thank you.

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