

Mega Talks with Bask Iyer – Part 1

Ajay says: Hi, I'm your host, Ajay Bahl, Corporate Vice President and Head of MEGA Verticals in HCL America and this is a platform where I bring to you perspectives from the industry leaders who are shaping the very future of these industries. Today, we have with us, Bask Iyer. Bask is the CEO of Bask Mind and he also serves as an Advisor or Board Member to several high growth companies - Zoom, Cohesity, Automation Anywhere. Bask brings more than 30 years of experience in executing and driving change. He recently worked as a Chief Information Digital Officer at VMware managing critical technology systems and driving digital transformation. He has also served as the EVP for Dell Digital where his team successfully executed the largest technology integration between Dell EMC and the revamp of Dell E-commerce. Prior to this, he's also served as CIO at Juniper Networks, Group CIO and Officer at Honeywell and executive roles in GlaxoSmithKline and Johnson & Johnson.

Hey Bask, welcome to the show.

Bask says: Thank you.

Ajay says: Bask, there's a lot that we can leverage your experience from with, you know, the way I want to start is really talk to you a little about the manufacturing industry, I think we clearly know there's a throes of change that are happening in the manufacturing world. Where do you think lies the biggest opportunities for manufacturing companies at this point of time?

Bask says: Yeah, I think, you know, when I started working 30-35 years ago, manufacturing this country was doing a lot in manufacturing and then you know what happened, we offshored it, outsourced, whatever. There's a resurgence coming back big time with between the pandemic and between the crisis we are having with the supply chain, war etc. There's a realization manufacturing is important but it's not going to be the same way. There's going to be a lot on manufacturing automation and automation these days, not just includes robotics but automation, you know 3D printing, you know in blockchain technology and so on. So, the big resurgence going on in manufacturing, the problem you're going to have is, do you have people with domain knowledge to do it? Because very few of our kids have actually gone through manufacturing floor or seen a shop. So, there's a little bit of a gap there from an experience standpoint but the technology is amazing, this is nowhere close to what I was working when I started in manufacturing, right. The degree of advancement that's made in robotics and Artificial Intelligence is unfathomable. So, the big trends is going to be automation. The big trend is going to be in shop floor automation and the data collection and things like IoT and Edge, which we can talk about more, I'm truly excited by what's happening there.

Ajay says: And where do you see the maturity of these applications? I know these are exactly the things that are defining. I think you said it right, we have manufacturing coming back. But we don't know whether the jobs are coming back and what skill set is required to really make it happen. But really, I think if you can expand on that a little bit more, I think.

Bask says: Yeah, jobs are coming back. I think when people think you know, its the same job that we did 40 years coming back, I don't think so. But there's great opportunities for people to automate the floors. You can do lights-out factories, you're doing that. 40 years ago, my driving was computer integrated manufacturing person, SIM was a big deal and we could shut the lights off in the factory and this still work all night long. So it's not like we don't know how to do it, it is just that, we have to apply it now and the technology is mind boggling. So I think it's opportunity,

the problems are going to be, it's going to be talent, it's not going to be technology. And you need to find a rich blend of talent from different age groups, multigenerational. You need the youngsters and people who are early experience, who are familiar with Kubernetes and AI and ML and so on, but you also need people who understand how manufacturing work, where to optimize, you know, domain knowledge and so on. So, I think a blend of those needs to happen and that's going to be our challenge.

Ajay says: Absolutely, totally understand and when you actually go into the technologies themselves, what is that one technology that is going to be most relevant across the spectrum?

Bask says: I think to me, people always look at that one, I think it's a combination of all that has happened. You know, so I look back and say Cloud Technology, that is going to be huge but then advancement in Edge Technology, that's huge, 5G, IoT and then you know, yesterday I was working with startup community and I was, they were doing a load testing for manufacturing real-time simulation and I looked at just the testing methodology that they used that they could loads, they could simulate the thousands of bottles being made and you know, a sensor reading it. That test would have taken me months to develop. And there you know, these people are just doing it in like ten days and then, you know 10 hours they're writing this code, do load testing. So, all technology important but I think Cloud is going to be pretty big, Kubernetes is going to be pretty big, advanced Artificial Intelligence and all this is good. It's the combination of all that in manufacturing that's become critical but if I have to pick one or two, I think the development we do on Edge is just outstanding. That amount of processing that could be done in the shop floor on Edge Technology and then it's kind of seamlessly connected to your data center or to the Cloud, the Multi-cloud between the big Cloud providers, Public Cloud providers to your data center to the Edge. We don't have architecture to do all this, even a few years ago. So, I think that would be huge. People talk about blockchain, I still feel like blockchain is a solution that is waiting for a problem in manufacturing. You know, the technology absolutely works, everybody is thrilled about it.

Ajay says: Bitcoins apart.

Bask says: So, we need some people to have domain knowledge to know how can you apply blockchain towards manufacturing. I could see a use case in supply chain, for example but 5G, we are getting close to ubiquitous networking now. So, things like inventory tracking and so on becomes so much easier with 5G and 5G is happening, we've been talking about 5G for a long but it's happening now.

Ajay says: But you know, all these technologies that are available, they are finding their way into manufacturing but I think there's still one step at a time. So I think, one of the biggest things that you talk about, how do you change the engine of a plane that is flying? I would have to do it at once to know exactly what we need to do but then there's, I think the most CIOs, people in your shoes, right? They would find a lot of things challenging. Right and so in your mind, what are the biggest challenges that a CIO, CTO, CXO would really be facing and trying to make sure that this dream to, lights-out manufacturing really, which was possible 40 years back also becomes a reality of the future and is that the desired output as well or really, where is that sweet spot?

Bask says: Yeah, I think the issue is going to be honestly, you need to find good CIOs and digital people who are willing to learn and change. So if you don't, if you feel like you're arrived since you spent 30 years in the business or whatever, you're still doing the same ERP of the same systems and the business is not respecting you. Because if it takes five years to

implement an ERP or four years to implement an ERP, you're following a yesterday's dream. And you're excluded from shop floor like you know, there's a whole classification of digital people and OT people. So sadly, lot of my colleagues are not even aware of what is happening on the shop floor, which is just a lot of money being spent. So the first thing I tell folks is, you know, you have to show interest and so the business includes you, right? And if you have typically, you know what, a CIO have a long list of projects and most of them are ERP, email, network, all that is important but if you do all that, the business guys are going to hire other people to go do those things. They won't even call it an IT project, the sad part is a lot of CIOs don't even realize that all the stuff we are talking about is an IT project. They look at it as somebody in engineering, somebody in shop floor or they call it OT or whatever and that is the exciting, that's where the CEOs and other people want to look and see is, how can you automate that? So first thing, I tell them is to develop an interest towards this, it's ok to say, you don't know and get mentors to learn and sometimes most of us feel like we've done supply chain for 20 years, we know what we're talking about, I think that is the problem. So, I think initially mindset has to change and then creating this culture, right. Why would good talent come and work for you? I mean, if you want to get somebody who knows IoT, Edge, Blockchain, Multi-cloud, Kubernetes, how can a manufacturing company, how can you afford it or how can you even attract them? So, unless the CIOs IT departments are a little bit more inspiring and they are open minded and they are more nurturing, so start with the culture and then strategy and then people and then process and technology comes the last. But we typically jump and say, hey, can we put blockchain in manufacturing? You can but does anybody in your department knows blockchain. Do you know the domain trends there, do you know how to support it? So, I tell people you have to follow that, you can't jump into, you know, let's go find a cool technology somewhere and put it in. You have to go through interest, you know, culture change, attracting the talent, now if you attract talent, just think about this practically. Say you go hire your children or my children to come and work in a shop floor and you have old PLC controllers and you have, you know, the kind of things we're used to. First of all, they won't understand and they wouldn't work.

Ajay says: No chance.

Bask says: So, you have to modernize and you have to go into a modern application development, you have to go into an agile methodology, you have to make it cool and you have to also use the newer tools like Kubernetes and so on. Otherwise, you know, most factories, people would look for ladder logic changing or you know those kind of programming.

Ajay says: You think, people actually understand that I mean, you know, are people spending money based on the fact that, you know, there is obsolescence that is likely to happen from a people perspective and if the people retiring, you definitely need a younger workforce or is that?

Bask says: I don't think it's happening. I mean, that's what we need to wake up and say yes, the big tech companies Google and Amazon and there they're sucking the talent out but you have to change your culture, you have to make it attractive. I mean, if you're a young person, would you like to drive, you know, one of a modern car for a daily driver or do you want to drive an antique? Right, I mean, once in a while, it's cute to drive it but you don't want to be driving that to work every day. So, in manufacturing especially because there's a big demand on spreading assets and cost savings and so on, we try to have so many old gear that we're trying to work, good luck trying to get good talent to come and work there. So, I would do a cheating, I would do a combination of, you don't throw all the old things out but you have to create at least a few

innovation projects that you get the talent in, right? Like, I would work, if you give me a 20% opportunity to work on innovation projects, I don't mind doing 80% maintenance. But if you tell me 130%, I'm not going to work on some back office maintenance projects, I'm not going to.

Ajay says: So clearly, you're a big proponent of agile putting it together, give everybody the opportunity to try and do the entire spectrum versus try to do a rambunctious to build organizations.

Bask says: No, that doesn't work, they call it, two faced IT, there's a term for it. But you know, who wants to be on the lowest? You say, I have an IT department and you belong there, you can choose, do you want to be on the high speed cool or the old ugly part, where you going to put your hands up? So, I don't think it works, it creates like a caste system between IT departments that the functionality doesn't work so, you need to have everybody work on innovation. You can have some mentors to guide people, but you know, you and I want to learn.

Ajay says: Somebody questioned you a little bit on the multimodal, right? You know but there is this concept of system of record and system of innovation. You don't want your system of record to be working with changes in the same fashion etc. because you want to have this stability in the system of records versus system of innovation. So, how do you, you know, kind of bring that dichotomy back into what you just said. Does everybody wants to work on this, but there's an importance to the system of record. Yeah, I've changed that much.

Bask says: Yeah, I agree with the system of records and system of engagement but you don't divide people among, would you like to work on systems of records or systems of engagement and people, they all want to be on the cooler stuff, right? So, I think it's good to look at IT into those categories. This could be radical, I would not spend any more money upgrading system of records anymore. It is old and ugly, I've implemented a lot of them and I try to use them. You know but I try to certify myself as a supplier on some of the systems I've implemented now as a customer, it is terrible. I feel sorry for implementing those systems, it's so old, so ugly, I'm unable to use them and we spend millions and millions of dollars on these old ERP systems. Most of the enterprise class systems are 20-25 years old, right? I mean, the companies are 50 years old. So, they've been kind of not innovating, they've been adding incrementally to that software. So, you can't spend 40 million to do another ERP now. So, I tell people every project I go in manufacturing, they say, let's fix ERP, let's go to one big and now you're just sucking away a lot of innovation ideas out. So you have to put a wall around it, cement it, make sure it's running and abstract it and go to the modern technology. Now, all of us again, I said, if you give me 20% to do cool things, I will do the 80%, I wouldn't say but you can't just put me on something that is obsolete. So it's a little controversial, I deliberately try to be controversial to say don't keep pouring more and more money into this, you know, find other ways. But having said that though, I mean, let me just give you a story, 35 years ago, I was in Johnson & Johnson and we implemented a thing called A-Maps, that was the MRP system and we spent millions of dollars and I was a younger guy there and my Plant Manager asked me for, can you give me a back order report. To get an A match for me I had to go, beg the MIS department. Then I have to ask somebody, then get in line, this project is by long. So, what we are able to do is figure out a way to download a report, screen scrap it, put it in a, I think at that time, we had a Borland Paradox on database, put it in a database, put it in a PC, put it in a laptop in front of the plant manager. The business guys were just, they couldn't believe that in two days we can do something like that and they would look at the report, put it proudly on a big monitor and watch it.

Ajay says: They were happy cause this is what they exactly wanted.

Bask says: Very happy. The data is in the system of records but they were all talking about, this is what they wanted, we did do that. I think somewhere along the line, we'd forgotten it and started going towards just doing everything, the systems of engagement and just do it one monolithic way. I honestly believe that is dead, you need to have some systems in back but do you need to have final engagement systems and you need to be shopping around trying to get all from one vendor is what I had done before. You know, but I think that's the wrong way to go.

Ajay says: That's gone. We talk about manufacturing companies and I look at your experience its actually fairly varied, right, you've worked in other industries as well. When you look at manufacturing today, where is it that manufacturing can learn most from other industries?

Bask says: I think traditional manufacturing, I always feel the sweet spot is marrying the Silicon Valley to traditional companies, the manufacturing companies having worked on both sides. Sometimes, I come to Silicon Valley and I feel like, these guys are flying by the seat of the pants, they have no idea of scaling. You know, everybody is a SVP, VP and I'm thinking you haven't really built a company. You don't know what is it to run. But then, I go into the traditional companies and it's like three years to do a project. In about three years you form a company like Zoom, you create a product, you hire people, you create a P&L, you go IPO and you make a record profits, right? That takes a project in traditional companies just to do that. So clearly, you need to marry the West Coast agility, speed, creativity, innovation with some of the rigor that you have on the traditional companies that have been scale. So, I think people who can do that combination are going to be very useful. Very, very few people can do it.

Ajay says: So, you see manufacturing companies hiring CIOs or CDOs from Silicon Valley companies.

Bask says: There's a lot of demand, they're not hiring, they aren't able to hire. How would you attract, this is the question. So, how would you attract and so we have to think a little bit about what would make it attractive for those folks to come. Now, if you have a good cause, say health care companies are cool again. I've worked for a health care company for ten years and the health care was slow and boring to work. And as a young person, I was very irritated working in health care because of regulation and so on. So, you know, blow your brains out trying to roll out a system sometimes. But with COVID, we're all having a realization that's really critical or important and the vaccines that took ten, fifteen years to launch have been launched in a year, three or four, lot with Information Technology right and hard work as well. So, certain companies which have those kind of mission can attract the best talent. If you don't have a mission and don't have a culture and you're still stuck in a traditional way and say, can you come and maintain the systems I have and make it better? It's not going to work, I mean, people would be polite nobody's going to be rude and tell you anything. They'll just say, no, I'm fine. I'm happy where I am.

Ajay says: Look at Gen Z, I don't think those are people who are actually likely to come to office any which way, because the only way they need to now know, how to work is really work from home.

Bask says: And they work hard, I mean, I've watched my kids, I'm sure you watch your kids. I'm thinking, lord and goofing off is my first reaction. I look at them, my god, they are working very hard. They're very committed and they don't want me to go into the room to disturb them. So, I

think it's a little old fashioned for us to assume the only people and I've seen people in the campuses, sometimes I can never be productive in the campus because everybody's coming to talk to you about the football game.

Ajay says: I know, right.

Bask says: All that kind of stuff. So, I need to go home to be, get the work done. So, I'm not saying one way or the other. I just feel like, we need to find some hybrid work. We have to be flexible, you have to go where the talent is. There's a huge talent shortage right now. I mean, there's a lot of people available, but not good talent available. So, you need to be really clever on attracting the best talent right now. So culture is very important, manufacturing 100%, you have to make manufacturing cool. And how do you make it cool? It's a tough industry and you know, its tough margins, but you have to figure out a way to make it cool and interesting for people to come and work.