MEGA TALKS with Gary Cantrell - 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 Gary Cantrell. Gary has more than 30 years senior executive experience across information technology, manufacturing and financial services, including ten years with companies like Honeywell, Bank of America, Textron, Jabil. He's a dynamic, cross-functional executive who's held leadership roles in program management, finance and supply chain, including close to two decades in the role of a CIO. He's led the information technology and business process transformation on a global scale and is a strong supporter of diverse talent development.

Hi, Gary, welcome to this platform.

Gary says: Thank you.

Ajay Says: Gary, you have been in the manufacturing industry for a very, very long time. Clearly, there are a lot of opportunities for growth in the manufacturing industry today, given the context of what we're seeing in the marketplace. Would you like to give us with some examples how this might work differently in the manufacturing industry, given the technologies that are available today?

Gary says: Yeah, you know, I think through this and I think probably the single biggest opportunity is around connecting the ecosystems within especially large companies. We've got lots of legacy enterprise data, there's lots of data that's coming off of the manufacturing lines and in those instances where those have been integrated, we've seen some good results and I'll talk about that in a second, but I think from the from just a pure opportunity standpoint, the manufacturing industry syncing those two systems up, getting that data integrated or harmonized to some degree and being able to then take that data and use it to further digitize processes and automate those, I think is just a huge opportunity you're starting to see a lot of that. I think you've seen some of that with even before the pandemic, you saw some of this with optical inspection, where we started taking data off the line and using that to replace the human operator that was going through and checking anomalies if you will and we found out that we actually achieved a very high level of accuracy and I think that's progressed further during the pandemic activity, I think it's going to continue to grow and I think once you get access to that data, you open up the door for analytics, you open up the door for digital machine learning, and eventually AI, which again, bits and pieces are there, but it opens the door to all the new tools that are coming out and I think that's going to make a fundamental change over the next few years.

Ajay says: But where is the challenge for the CIO or the CTO at this point of time? So, when you really look at this workplace and you've been in those shoes. I'm pretty sure it's not as easy as.

Gary says: I'm glad you asked that. Yeah, it's not nearly as easy as it sounds it sounds great. Hey, we just integrate the data. Well, you know, if it was that easy, we would have probably tackled that a few years ago but I think it starts to get, it gets to be really complex and the data harmonization if you will, is the big challenge and it's not as you know, it's not a quick resolution, it's not a silver bullet to be able to make that happen, it's just a lot of heavy lifting and you have to constantly chip away at it and I think that gets back to where you set your priorities and then focus on that a piece of the time, because

you've just got a massive amount of industry structure, technology variation, platform variation that you have to work your way through.

Ajay says: And especially, I think in some of the companies that you work, those are really, you know, conglomerates which have presuming different types of technologies, more technology than you care to remember at this point of time.

Gary says: Yeah, absolutely and the other piece, there's more technologies than meets the eye, because when you start peeling back, you find a lot more. But the other piece, there's a huge amount of capital expenditure that these companies have put in over the year and it's not just where I've been, it's, you know, other folks that we've dealt with in our supply base and those technologies are still working just fine. They're just not working in the context that we need them to work in order to take the next step in the industry 4.0 context.

So yeah, it's I mean, huge lifting, a lot of innovation has to take place in order to make that happen. So, I think that's one of the pacing items is how fast can we innovate with some of the new models that harmonize the data and we're seeing more and more of that, I think that's going to be the accelerant that's going to allow us to get that done.

Ajay says: So I'm going to, you know, extend the thought that we just had around the pandemic. There's really been a big difference pre and post pandemic in practically every company, the way they've actually approached the market. I'm pretty sure, that is absolutely true for manufacturing companies as well. Now, how does the pre and post pandemic differ when you look at micro and macro-economic parameters for a manufacturing company?

Gary says: Yeah, so there's two, let me talk about a couple of macros and then a couple of micros. So, starting with the macros, I think and we certainly had this when I was at Jabil, we certainly got surprised by the level of virtualization we could do and the level of virtual collaboration we could do in our processes and I'll take that a step further based on personal experience. That's not just in the manufacturing industry, I think the manufacturing industry is probably accelerate about five years on what they've been able to do using virtualization, but I'm seeing it all over the place in all kinds of personal industries like moving, it is another example.

Ajay says: Virtualization, you're really talking about being able to do things virtually.

Gary says: Yeah, absolutely. So, it gets down to it, it's the hybrid work environment. I'll probably catch a lot of flak for this as being a believer because I was one of the skeptics and pulled back. I was hesitant on this but I've been amazed at how much virtual work, virtual collaboration and the next step, virtual change that the teams have been able to pull off and get the job done very effectively and very efficiently which I think is extended way beyond anything that anyone I talked to pre-pandemic, so I think going post-pandemic, that's going to continue, that's going to continue to accelerate, it's not going to slow down. The other thing I think we learned on as a result of the pandemic and there was a lot of effort going on the supply chain side pre-pandemic and it was really around supply chain transparency, trying to leverage some of the analytics and partnership business transparency stuff. But I think what's happening
as a function of the pandemic was there's been a fundamental shift in what we're doing with supply

chains and pre-pandemic, it was all around globalization and efficiency and I think the teams did a fantastic job, they made tremendous progress.

Ajay says: I'm going to talk to a little more on that, right. So clearly a macro-economic trend, clearly the focus is on trying to look at efficiencies very differently from the supply chain perspective rather than just focusing on efficiency. It's about the risk that the geopolitical risk that is actually coming to the picture because of it, do you see manufacturing companies really, you know, changing their supply chains completely to de-risk themselves from political change that can be the driver at this point of time?

Gary says: Yeah, I think they will try to reduce the level of risk. I don't think they can eliminate the level of risk or eliminate them or eliminate the risk. I think there's always going to be an element of risk. I think as a practical matter, you can't onshore all the companies can't onshore all the production. So, I think that's why I stress, I think there's going to be a more balanced approach. I think there's going to be a lot more attention to the critical components that have very limited supply chains and I think that's where a lot of components you have multiple sources, those kinds of things. There's a few that will get a lot of attention and good example is chips. I mean, right now it's affecting everything. There's ample we thought there was ample supply, but it's not just a supply issue, it's a type issue. It's not just chips, it's the right type of chips that we got to have. So, I think you're going to see a lot more focus on that and that applies to virtually all manufacturers that just you know, depending on what they're producing and I think customers of the manufacturers so those customers that do contract manufacturing as an example, I think they're going to be much more astute to it and you're going to see a lot more dialogue around, they're going to be putting a lot more pressure on the manufacturers to go okay, how are you protecting my supply chain and they'll take a bigger hand in that if history proves correct.

Ajay says: Changing gears a little bit, Industry 4.0, right? It is, you know, we've seen it go from a high to being much more pragmatic about what it can do and what it means for organizations and people. What in your mind is next for industry 4.0?

Gary says: Yeah, I think, we've seen a lot of point solutions come out of industry 4.0 and I think folks have done a fantastic job with that and I think that like any big project, if you can get some small wins, it helps a lot. It helps build confidence and it also kind of helps folks see the vision. I think we're at a stage now where and in especially after the pandemic so not to keep going back to that, but just the lessons learned that we had from the pandemic experience where we just figured out how to do things. I think that's going to really accelerate what we're doing with industry 4.0 in the bigger context. I think that the companies that are going to be really successful and I know in the past life, last couple of lives, we've spent a lot of time focusing on the roadmap, what are we trying to accomplish, what outcomes, what business outcomes do we want to achieve? The technology side is complicated enough and there's a lot of back end stuff that we talked about earlier we have to tackle and that's going to be messy in its own right. But that in itself doesn't necessarily provide business value which is part of the challenge. But I think if we can get alignment between the business and the enterprise providers, IT is a great example on, okay, where are we trying to get to? What business value are we trying to get out of this? Are we trying to recycle time? We're trying to virtualize, we trying, I know everybody's going to have that front and center. So, I think that's going to be the part that they got to get aligned on and get the roadmap. Then I think once you kind of get there, you got to start breaking that down into some tactical project like I was talking about. So you go on the line, I look at some of the activities that have been done with

pulling data off of some of the older manufacturing devices and working with the operational teams and then trying to integrate that with the enterprise systems. We've had some good wins there and we had some fairly quick wins there, but they were point wins. Now, to do that in a broader context, I think is really what's going to take us to the next step.

Ajay says: But do you see that evolution happening for all the manufacturing companies? Is this really going to be an option or something just necessary for survival and how quickly will this shift, entire shift happen?

Gary says: I don't think it's going to be an option. I think it's you're going to have to do this to survive. I don't think it's going to be a two-year survival trend but I think you start looking five to seven to ten years out, I think the companies that embrace industry 4.0 they embrace, you know, digitizing the processes, virtualizing, automating. Those are the companies that are come out ahead. I think that the other part of this is, is that the companies who don't try to do it on their own and realize that they need partners to help do that, are going to be the ones that are going to get there first, they're going to get there the most efficiently or most productively, and they're going to be the big winners.

Ajay says: And I think you mentioned partners. So, what role do partners really play for a company in this journey?

Gary says: Yeah, great question, because I'll look at this the way I did the last couple of CIO jobs I had. When I look for a partner, I look for someone who's going to have skin in the game and I don't care whether I'm looking at an integration partner, systems integration partner, software partner, manufacturing hardware partner, it doesn't really matter. I think anyone who's coming in and doing something with me that's strategic, I want them to have some skin in the game. I want them to bring an expertize to the table. I want them to bring some experience that is valuable that they can use to help me drive where I'm going, help drive my roadmap, help me unlock the business value piece of it. And, you know, given their exposure to multiple customers, multiple industries, they should bring a wealth of knowledge there. They also ought to bring some resources in a lot of cases, they have good resources that can focus on the problem they're helping me solve. I can free up my resources to go work on other projects and that's what I expect to see out of a partner and that's where I think partners bring a tremendous amount of value. You just can't do it all yourself and you don't want to try to outsource the whole thing and have partners do it all because they just don't understand your business. But I think if you get the right partner in there, you build a good collaborative relationship that has an element of openness and transparency can be hugely valuable and help you move a lot faster.

Ajay says: I know you mentioned that, you know, you would value partners bringing in experience from other industries. You know, manufacturing in a lot of ways is a very different industry, which areas of manufacturing and, you know, we debate this often. There are various value chains that being part of manufacturing, which areas can benefit most from other industries and where they would be value to really make sure that, you know, you're getting the expertize from other industries and manufacturing.

Gary says: Yeah. So, I use a manufacturing, a big footprint. I use an example from long ago, a while back, we were working on aerospace, airplanes and stuff like that and we started talking about lean six sigma and we questioned how we were doing some of the designs and at the time we had been bringing in some folks from other industries, namely the automotive industry. And we said, well, gosh, I mean, an impeller is an impeller.

If we can use this process in automotive, why can't we use this process in aerospace? And that was a little bit of heresy. But at the end of the day, after a lot of, you know, food fights and all that kind of stuff, we found that there was a lot of stuff that we could do differently, that was more efficient, that did not impact performance, did not impact quality and that was a function of that cross-fertilization, if you will and I think if I look ahead and we start looking at going more digital and we get into the virtualization and automation side of things, I think there's a lot more that we can learn from some of the companies that are asset like, just the way they do it and that I think, that's going to add huge benefit as well. And it's just one size doesn't fit all, doesn't 100% translate but if you get those nuggets out of there that are beneficial, then I think that's hugely valuable.