



For Cloud professionals, part of the On Cloud Podcast

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Episode_02_BernardGolden

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David: Hey guys, welcome back to the podcast and special guest I got today Bernard Golden, he is been a friend long time and he has probably the most experience in the Cloud space because he was talking about Cloud back when it wasn't cool to talk about Cloud. Bernard am I getting that right?

Bernard Golden: Well I've been working with Cloud Computing since before it was called Cloud Computing, it was just called infrastructure as a service and I caught on to it then and have sort of followed his direction ever since.

David: So it keeps the audience up, so I know that you are working at Capital One now we are going to hear about that, but give us the Bernard Golden story. So how did you get into Cloud? Why did you get in to Cloud and books you've written and different things you've done.

Bernard Golden: Sure. Well, I've worked all my career in software, I've started my career in a large enterprise IT organization as a Software Engineer, eventually I was recruited started working more on the vendor side, worked through a number of companies, startups and so forth. And they were sort of packaged enterprise software companies and I saw a lot of the benefits that they brought in terms of bringing forward

the ability to do automation of processes and so forth. But it was always a challenge for our customers, that it was really expensive to get started and it was hard to figure out, and it was hard to get support and then I got exposed to this called Open-source software, this is around year 2000 and I looked at and I went once this is available who is going to stick with the old way of doing things. And so I started working with Open-source software, starting being a consultant around it, working with companies and ended up looking at an Open-source product called Xen, I was doing some writing, I was looking at virtualization. And coming out of that I was writing a book called "Virtualization for Dummies" and was trying to figure out what's the direction of virtualization, and got exposed to this thing from AWS called "Infrastructure as a service". And I tell you that I had the exact same reaction to that as I did Open-source it was like once this is available who is going to stick with the old way of doing IT and I sort of set my sail toward Cloud Computing and have been going in that direction ever since.

David: So in the space you've written for Computerworld and you've done several books, give us an idea of that work.

Bernard Golden: Yes, well coming out of the work that I was doing on Open-source I really want to share kind of my perspective on that, I started writing, my first book was called "Succeeding with Open-source" it was kind of a CIO perspective of Open-source. And through that I developed a relationship with CIO magazine, started writing for CIO and then carried on a weekly column for them for years and as I made the shift to virtualization and Cloud I changed my focus there, I did that. As you mentioned I've written several other books, I've written four books on virtualization and Cloud Computing including "Virtualization for Dummies" and "Amazon Web Services For Dummies" and I continue to write you can find my stuff at bernardgolden.com which is my own website. And continuing to provide, thought and commentary around what I consider to be the most dynamic trend in information technology ever which is Cloud Computing and all of the things that go along with it.

David: Yes, Bernard is being a bit humble because it's funny as like when I am in different meetings and talking to technologists out there his name always come up as kind of the guy to follow and certainly the person who puts practicality in the Cloud Computing which is always something we were missing. So say you compare Cloud Computing as to – I know what you are going to say it's very different it's compared to Cloud Computing as to when it kind of first emerged in 2008 versus how we are dealing with it in 2018, what's kind of the core changes that you observed?

Bernard Golden: Well I would say there is a couple. One is it's a far richer offering. When Cloud Computing first came out AWS really launched it, it was kind of you can get virtual machines on demand, they came out with – they had object storage eventually they added the ability to add volumes but it was really sort of fundamental computing constructs. Well today, AWS and its sort of co-patriots what I refer to is AMG, AWS, Microsoft, Google the big three of the industry. They have an incredibly rich portfolio of services that provide all kinds of capabilities I mean they've all got machine learning capabilities, they build applications they've got, analytics they've got Queue Services or Storage Volumes or the ability to do kind of file transformations and so forth. So the portfolio of services is far, far richer.

The second difference is that users are really different today or I would say the user base has grown substantially when it first started it tend – the user base when Cloud Computing first got going the user base tended to reflect I would say three constituencies. One was startups who said this is a great way to get going; the second was sort of the portions of the industry that were maybe over served by the traditional big legacy vendors so maybe small, medium sized businesses; then the third was sort of disaffected parts of enterprises in other words the parts that within enterprises either business units or parts of IT that were poorly served by the currently existing IT practices. They could never get resources, they couldn't get mindshare or whatever - those are the three constituencies. Today it's completely different, today Cloud Computing is the mainstream within enterprise IT, every enterprise is adopting Cloud Computing and many are beginning to focus all of their new applications and deploying them into cloud environments, then there is companies like Capital One which is why – now I work for. Now this is going on Cloud Computing its intent is to run everything on the Cloud. And so it's a very different kind of thing, it's become the new normal if I can say it that way and every application, every IT organization, every startup they just assume that as being the vehicle that they are going to go forward with.

David: So ultimately it's been a sea change in terms of attitudes, it's been a sea change in terms of technology. So tell us a bit more about your role at Capital One, what are you doing there and what are some of the opportunities that you see with that?

Bernard Golden: Well, as I said Capital One is all in on Cloud Computing and they asked me to join them as Vice-President of Cloud Strategy and really help think about what's further down the road, three to five years. And I sort of liken to you are driving down the road and you say "Let me put on the high beams to see what's further out". And that's the kind of areas that I'm focusing in. What are the kinds of things that are being developed by the Cloud providers, what are the kinds of opportunities to build around those new services, what are the ways that Capital One should be thinking about how to become more "Cloud Native", and take more advantage of those services and also to build applications that are more attuned to that kind of arrangement. Those are the areas that I'm looking at and focusing on.

David: So what is going to be important in two or three years down the line and whatever you've been talking about in the world of Cloud Computing and what should some of the enterprises be focused on?

Bernard Golden: Well, clearly this is sort of say – repeating the very clear but machine learning is obviously going to come into many, many domains with the companies and what's interesting about machine learning is its going to affect every different aspects of businesses differently. So lots of companies look at it for how do I do marketing more efficiently, how do I partition my customer base segment them, put offers out, how do I understand that. But you will be able to look at it depending on your industry to improve manufacturing efficiencies or to improve distribution capabilities or to look at the way we might do maintenance. I mean it's really a technology that its very horizontal, so that's one area that I would say, is very clear. Another area that I sort of gave mention to around Cloud Native, there is a whole new paradigm of how to design and operate applications that is both enabled but also forced by Cloud Computing, because you can get resources in seconds or minutes because you can grow or shrink them as you need them that really sort of enables a different way of approaching applications.

You want to build them to be elastic so they can grow and shrink so they are not tied to static resources and you want to take advantage of and respond to changes in load and so forth. But it also kind of forces it, because once that capability is there you sort of start thinking I need to be able to integrate it or else my applications don't operate very well. And so there is a whole trend around how do I get smarter around the way that I design, implement, operate my applications and run my internal operations so that sort of DevOps continuous integration, continuous delivery. What I used the phrase Cloud Native, how do companies become more Cloud Native that's something that will be a huge change for organizations going forward, they will need to adapt those kinds of practices and capabilities.

David: Yes, seems like there is a big emphasis on lift and shift capabilities and I think my estimation is that there is lot of applications that are being lifted and shifted that really should be refactored into kind of a Cloud Native states and do you agree with that, do you think that we are probably moving applications willy-nilly without understanding what the applications are doing and then actually refactoring them down, so they take advantage of some of the Cloud Native features?

Bernard Golden: I think that you are exactly right. If you lift and shift you gain certain kinds of benefits and I think that you just wrote a column on that where it said you can sort of probably gain 10%, 20% efficiencies by doing that you are doing to maybe some cost differentials you are not going to have so forth and so on. To really take advantage of Cloud Computing, you need to sort of move toward architectures, operations and processes that are more tuned to the way that Cloud operates, Cloud Native is a phrase that you might use. And you then unlock and lot more potential opportunities and benefits that you can get from Cloud Computing. And in terms of existing applications really the only way to do that is to go in and reanalyze them, take them apart, reassemble them in this new fashion the refactoring as you called it. For new applications you should start with, I want to design it to fit the environment it's going into what do I need to do.

David: So going forward, we are looking at kind of Cloud Platforms as these innovation platforms and I've been running around doing a presentation in terms of the fact that not only are we disrupting kind of market places with guys like Airbnb and NetFlix and the normal suspects Uber, the normal suspects and people who are kind of poster boys for being disruptive businesses. But I think we are getting to a point where a lot of the larger businesses are going to start being disrupted completely out of their market, they are just not changing as fast as the market is changing and going forward enabling technology such as Cloud Computing and DevOps and machine learning, predictive analytics all the kind of new shiny things that are out there. The ability to kind of leverage value there really is around not necessarily operational efficiencies with the ability to kind of enhance innovation within the companies themselves to kind of get them out of trouble. I really do think that in 10 years the brand names that we're typically dealing with maybe dealing with the last 100 years or lot of those may fall by the way side and get bought by other companies just because other companies are able to get in there with technology do things more innovative and creative, disrupt the business make them more attractive to the customers. And we are going to see some changes, so I think the Global 2000 needs to be a lot more innovative, they need to look at technology in a lot more creative ways, innovative ways as kind of the platform to change their business and disrupt the disrupters. So what do you think about that?

Bernard Golden: I think you are right. This is a sea change in the technology capabilities I mean it's a cliché but we are moving to a digital sort of society, a digital sort of economy. And even things that are sort of Adams we surround with digital capabilities and the automobile is pretty good example. The obvious thing is that we are moving toward autonomous vehicles well that's computing wrapped around a car and but that's not going to be the end of it. Then you'll rethink what a car is also there is going to be a moving office, it might be a moving house, I mean you don't – well to enable to these kind of capabilities and so it's really critical for companies to think about how will my product change once its surrounded by or infused with computing capabilities. Cling Christian is very good about this he came up with this concept of what do customers, what do users hire, what job are they solving with the product, what are they hiring it to do, and the cliché is people don't want to buy a quarter inch drills, they want to buy quarter inch holes. And so it's important for companies to go back to this automobile example to say what are people hiring a car to do, and what will they hire to do once it's has richer capabilities, and by extension that really applies to every industry in every company. We are at a sea change kind of in our society and economy and it's really critical to think through, how can I take advantage of this new computing capability and the capabilities in there that are far richer portfolio services to rethink the job that my customer hires me to do.

David: Do you think that the Global 2000 out there is going to have the ability to kind of adopt this technology in the timeframe they need to be effective to actually enable innovation and creativity, in their organization to not only defend against some of the disruption that's occurring right now and will increase in the future. But also create new markets. I'll give you an example, I just bought a truck the people who sold me I'm not going to throw them under the bus but the people who sold me the truck and the manufacturer of the truck they can tell me when the truck is going to arrive and so ultimately it's going to be between three months and six months as to when the thing is. So why can't they understand their supply chain when the parts are going to show up, when people are going to be scheduled, the weather that's involved and be able to allow me to monitor the construction of my truck online and the ability to kind of see it being shipped and let's see if there is other car companies are able to do that.

So that's kind of a good example of someone who did an upstart basically built their systems from the ground up to be better than their competition. And I think their competition is going to find that their markets are going to be slowly disrupted in the case of the automobile industry but disrupted nonetheless, unless they are able to adopt technology to put in these enabling changes to kind of address their customer's needs better than the competition out there, than the existing disrupters. So I think the people are typically more sticky on brands than doing abstracts but they are willing to move to new technology, new brand names, not picking on the car companies but – look at everything else that's going on out there. Ultimately if they are able to do – build a better mousetrap and also enable them to deal with customers in kind of creative, innovative ways that delights the customers, what do you think?

Bernard Golden: The example of the car that you've just – the truck that you just noted, I think it's a really good one because in the past basically the system was completely opaque inside the car company, it figured out how to get all the parts and how to get them together and all that. They would ultimately consumer had no visibility other than when an particular automobile showed up on a lot, and you show up on a lot and go what do they got, what's available today kind of thing. And if you sort of looked at it and say "Now I'm going to design this business today, how would I approach it?" Well, yes you probably would say "I need to have visibility into every stage of the supply chain", and by the way I'd like to open that up to the buyer, so they have better sense of this, so they have more connections, so they can get more involvement, whatever. And your point about the Global 2000 needing to have the ability to relook critically at their businesses and say "What needs to change to meet the kinds of expectations that people will have now that they've got an alternative". Because really 10 years ago if you want to buy a truck and they said "It would be three to six months" you'd go well that's the way it is. Its only today that when you go well if want to buy one of those Tesla's I could track it all the way through the thing and etcetera, etcetera. Now you go where is that and that's what I want, how come I can get that from my truck company not to pick on the truck company or cars. And the expectations get set at a certain bar as new offerings come up and the challenge for many companies is to sort of say we can't just look at doing incremental improvement in what we do. We need to rethink our offering, we need to rethink the job that our customers asking us to – is hiring us for, we need to rethink on processes. I mean it's super hard, but that's what it is going to take because the barrier to competition is now reduced.

David: Yes, it's reduced and also people as you said earlier just kind of setting the bar and people's expectations are going up. So ultimately my ability to get healthcare, my ability to buy things, my ability to buy stuff online, my ability to get groceries, my ability to do lots of things these days which we have traditionally been in some sort of a model, the models are being changed now and I think that ultimately it is about changing your business model even the way in which you operate your business. In doing so before someone comes along and basically changes it for you and I think there are lot of the Global 2000 certainly the Fortune 500 in the United States the ability for them to change and adapt to forthcoming markets I guess that's why you exist at Capital One to look three years down the line as to what's going on and be able to line to those kind of new innovative ideas that are popping up it's going to be imperative to their success. And I just don't see them changing as quickly as they need to change and so they are going to get burned a couple of times and hopefully they are going to survive the burn, I don't think everybody will. I mean there is a – companies like Borders, they didn't see Amazon coming and didn't adapt their core operating model and capabilities around in the forthcoming competition of Amazon and other... there is millions of other instances like that as well where people have had their lunch eaten and basically they've tried in the last reactionary minute to change their processes and change their enabling technology but it was too little, too late because they didn't see initially this threat coming forward and able to change internally around leveraging new technologies such as Cloud Computing to enable them to be more innovative and I guess hiring innovating people and creative and talented people and people who are able to take risk versus traditional Global 2000 Executives which are very risk adverse. Anyway final words on this?

Bernard Golden: Well my thought is that – we are having a real doubter of a conversation and....

David: No, I don't think so, I think this is about really kind of getting people into the mix of the fact that they can improve your business, so in other words we are telling – we're being good doctors here we are telling the test results are back in and based on what we see unless you take action which is going to improve your business perhaps it will allow you to lead your market we but don't see a good outlook for you not changing around the world that is changing.

Bernard Golden:

Yes, I think that's a good way to say it. Now tie it back to Cloud and to tie it back specifically to what you are saying. If you look at, if one looks at Cloud Computing as kind of like it's a data center at the end of a wire and I'm just going to continue using it the same way I've always used the data centers and I have same assumptions, same practices. Maybe you will get some incremental benefit but this is not a world where 10% or 20% improvement is going to be sufficient given the massive changes that are going on as a result of shift of digitalization and so forth. And it's really critical to sort of say, how do I rethink my processes given what I can now do a technology and technology is infusing everything. How do I take advantage of Cloud to really rethink my processes? A different way to say it is and I sort of kind of laugh which is for many, many years, CIO's, Senior IT leaders have always said "I want a seat at the table, I should have a seat at the table", and that's – being ambition. And what I laugh about is today you are going to get a seat at the table and the problem is now everybody is going to look at you saying "What do we do?" and so you've got to as an IT leader you got to be thinking well beyond the I can make my – I can make my cost more effective and I can reduce cost by 10%, you need to be the engine of change for your organization, you need to be the visionary and innovator that says "We can rethink the way we go about this business opportunity this business offering to restructure it, to redesign it to bring it to the market place" it's an incredibly important area and incredibly important role that senior IT leadership has to take on and that's the – it's kind of a blessing and a curse that's the challenge and the opportunity.

David: Yes, I think its core change in realizing you have a problem, you have to change – core to any kind of significant alterations in the business and I think the ability to kind of put an emphasis on the value of technology in enabling the business going forward if something that they are going to need to do. So it's not only a seat at the table but they have to have an opinion that everybody listens to in terms of changing the technology around the future capabilities of the business. So the business can align behind the markets and technology is not everything, obviously just enabling tool to do your business better, but I think it's a little bit different thinking than corporations have done in the past. So Bernard where can we find you on the web, where can we find your writing and how can the listeners reach out to you directly?

Bernard Golden: Well I would encourage everybody to visit my website which is bernardgolden.com pretty easy to find, and you can always find me on Twitter @bernardgolden and those are two best places to kind of see what I'm up to, see what I'm thinking about, see what I've written.

David: Great, it's great to have you on the podcast, we are going to get you back sometime soon and again Bernard Golden he is a great resource please reach out to him and read his stuff, he wrote some pretty profound stuff, around Cloud Computing very thoughtful writing. I want to thank you for being on the podcast Bernard.

Bernard Golden: Well David, thank you so much for your kind words and thank you very much for the invitation to come and speak with you, I really appreciated it and really enjoyed it.

David: My pleasure.

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