2018 AWS re:Invent Special, part of the On Cloud Podcast

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Episode: Debrief of Day #1 and What's Coming
Description: Join David Linthicum and Mike Kavis, along with Deloitte luminaries Bob Briggs and Ken Corless as they recap the first day of re:Invent and make predictions about cloud computing and more.
Duration: 0:26:39

Operator:
Welcome to On Cloud, the podcast for Cloud professionals, where we break down the state of Cloud Computing today and how you can
unleash the Power of Cloud for Your Enterprise.

David Linthicum:
Welcome back to the podcast, we've got a great panel today. We've got the big brains of Deloitte, number one, we have Ken Corless, he's CTO of the Cloud Practice, how you're doing Ken?

Ken Corless:
I'm doing great thanks for having us on this special day.

David Linthicum:
So you have a little trouble getting into Vegas this week?

Ken Corless:
Yes, the snowstorm in Chicago Sunday night was suboptimal.

David Linthicum:
So it's always a journey getting to the journey of re:Invent, is that kind of the way we're putting it?

Ken Corless:
Yes, my day started up by digging out of a snow bank that we skidded into so...

Bill Briggs:
We need the vertical takeoff. Not far away.

David Linthicum:
And also that's Bill Briggs, CTO of Deloitte, how you're doing Bill?

Bill Briggs:
Hey David, great we had the same snow in Silicon Prairie. I did have to go do battle with the driveway, but good to be here.

David Linthicum:
Yes, good to have you here. And my colleague Mike Kavis, also with the Cloud team. How you're doing Mike?

Mike Kavis:
Good, I mean, I live in Florida so I actually had to take shorts off and put long clothes on.

David Linthicum:
So anyway we are going to talk about re:Invent and in essence, recap some of the announcements that have come out so far, and I think going to kind of categorize them they're very tactical in nature and so in other words we're doing a lot of infrastructure upgrades or doing basically processor support things like that, so probably the bigger stuff is going to come to the end of the week, but some of the launches that we heard last night include AWS Rebel Maker, developed to test, deploy, and manage intelligent robotic apps, AWS Data Sync, AWS Transfer to SFTP, fully managed SFTP service for S3, Automated Cost Optimization for S3V and Intelligent Tiering which is kind of interesting—we should probably talk about that, and then—Snowball Edge with more compute power and the GPU and I can read them on they go on forever it's probably going to be about 70, 80 announcements that kind of come out of this thing so the focus seems that were focused on the infrastructure things toward the beginning of the show and then toward the more business-oriented things, toward the end of the show. We're getting Machine Learning and analytics and some of the things that are more business applications so Ken, what's your take so far on yesterday.

Ken Corless:
Yes, I'd say their focus on not skipping the little pain points of developers is really important. So take the SFTP Server nearly any solution that you deploy winds up leading you to stand up in FTP Server provisional small easy to, you might be doing two files a day or 200 files a day but it's just another moving part that's a little pain, right? It is not the reason a project succeeds or fails, but I take out of it that Amazon's not forgetting about the little guys who are fighting the little battles in the trenches every day and continuing to try to make their lives easier.

David Linthicum:
So Bill do you think the announcements are going too fine grained, in other words there is 80, 90 announcements that comes out of AWS and re:Invent that used to be 50—used to be 40—before that the year before that probably 10, and there was always price reductions. Now no price reductions and we have lots of different announcements and very technical things of course. Our propellers are spinning at full rate in here at the table, but is this really should be about macro releases, macro patterns?

Bill Briggs:
We'll look back at the end of the week and see how this plays and I think the refinements that represent everything that came out yesterday, Sunday night, they are important and there is teams that are celebrating each one because they are real pain points. There's a reason why the tools are being released, the platforms are being upgraded, so yeah it's easy to say macro fireworks are not in full display, but at the same point, these are meaningful upgrades and refinements that are going to matter to the teams. I don't want to dismiss them, but I think there's probably more to come, the bigger headline announcements.

David Linthicum:
Yes, it is if I can make my containers run 30% faster based on some native chip that we're able to localize the containers on and some virtualization tweaks that are coming out. It's not very interesting for writing about the technology, but it is kind of getting to a niche-based system and I guarantee AWS has access to people who need this feature. And kind of like the AWS culture is we're going to go off and talk to customers and customers and say we need this feature, we need this feature, we need this feature, and suddenly “two pizzas” come in and then 30 days later they pop out—they pop out a feature—so they kind of a culture unto itself they're creating an agile culture into itself within the enterprises but they have a culture themselves, they are agile into themselves. So you think that's a benefit for the industry in general Mike?

Mike Kavis:
Absolutely, and I just saw a tweet that S3 is now worm compliant which is right, all at once read many, and I've been in a couple client conversations over the years where that's been a sore point and we look at solutions and I would always say maybe if you just wait a little bit they are going to come out with it because that's basically what they're known for. Enough customers ask for something and man it's there—voila —and there it is.

David Linthicum:
So one of the, if I'm looking at a pattern, I look at automatic cost optimization for S3 Intelligent Tiering. We're getting to a point where we're starting to remove the users of the cloud away from some of the configuration stuff that's really kind of getting us into trouble. I mean we all have been leveraging AWS in the beginning, Mike and I worked together back in 2006 we actually stood up one of the first AWS applications out there, but I kind of found it, like we're very much building a data center in this virtual world, in essence putting data centers at the end of the wire. And going forward we really shouldn't have to do that, we really should have the cloud providers that are in essence gathering the resources that we need leveraging for the time that we need them and returning them back to the pool, and take the onus off of us from having to manage the infrastructure configuration for having the cloud provider do it, and this is Intelligent Tiering things basically is a point of removing that, but the larger issue is move it into serverless. So we had AWS Lambda showed up a few years ago, it's been very successful in the market now we have Serverless Based Databases, we have Serverless Based Containers, and I just talked to a reporter about that earlier today. The world is basically moving over to this "automagical" infrastructure where in essence, the Cloud is removing us from having to make these decisions. Ken, you've been doing a lot in surveillance lately, what's your opinion on that?

Ken Corless:
I think it's a pretty big shift. I look at, of course, serverless isn't any more serverless than cloud is data centerless. It's just somebody else's right and I think when we move towards serverless, what we're really talking about is leveraging what Amazon is best at, right? And the cloud providers are best at, which is driving automation, so sure we can patch our own stuff and we can write some of our own automation but what they really do is they don't offer a serverless-feature, unless they can make it 100% automated and self-serve and I think that's what leads to your two-pizza teams, because I need to have you know today in the enterprise, too often we need to have dozens of people involved to get any relatively simple task, a simple migration done, so the more I can do serverless the more I can have my true small two-pizza team to get the high velocity they're looking for.

Bill Briggs:
And what I love the Tech Trend that's coming out in the few weeks—our 10th Anniversary Tech Trends Report—one of the chapters is NoOps in the Serverless World which is, it's pithy. Going to buzzword bingo in one title! I think it's great, but the point of NoOps not meeting the DevOps, everything we've been trying to do to help our clients along that journey is any less important. It's just giving a different end state where a piece of the landscape completely automated where I'm not thinking, I can't even know and influence and use that as an actual forcing function to say now the rest of my environment, how am I going to manage the same principles embedded
in maybe a traditional on-prem stack or hybrid stack that's getting pieces moving toward the end state of serverless as a great part of the long-term principle or vision. But then how do I actually get there from today and what changes that they make to my IT operating a delivery model and that's a CEO level conversation which is really fascinating. Just a few years ago that was a CIO, CTO, head of engineering and ops, and it's really been elevated, which I think is fantastic.

David Linthicum:
Yes I heard that word a bunch of times that I've also been in lots of meetings where I think they would of laughed me out of the room if I used the word NoOps. But we are heading to this kind of a world where the automation is going to be so good there we're going to abstract the users the people who typically, the humans, the people who typically make the mistakes, out of making some of the operations decisions you're going for that?

Ken Corless:
Yes, well for pieces. I think that's the key thing as we say as the more cynical folks around the room that kind of chuckle and laugh and maybe roll eyes. It's nice to be able to say this, from an Amazon that gives us close to that potential but then to take advantage we have to make some fundamental changes in how we organize our own IT shop, the skills that we need, the platforms that we're standardizing, beyond just the pieces that might live up to that you could even say skeptically will we ever get to the complete NoOps. There, ops are still happening, they're just being automated, managed by someone else, but that's only going to be a piece of a big enterprise with our clients in the private and public sector. That's not the full end state for most of them right, so how do we navigate through this transmission between.

David Linthicum:
So, Ken, I'm going to be you know at my first re:Invent here. I've never been to a re:Invent before now, I don't know how I avoided it. I guess someone had to run the company. At some point, as we elected people who are going to be here, the thing is there seems to be a very diverse crowd of people who used to be very technical in nature and the people who are doing in the AWS Engineering and doing the application development things like that. Now I'm seeing the business leaders, the CIOs, the CTOs, as even the CEOs here, Vice Presidents those sorts of things, so what different guidance would you give to different tiers of people who have different levels of skillsets versus the business-oriented or the technically-oriented person, as to what sessions they should attend, not specific sessions, but what should they look for?

Ken Corless:
It's still at its heart a technologist conference, right? Back to some of the announcements they make are pretty detailed, in the weeds, and this is a conference toward people who build systems, right? And it certainly has expanded. I've been to all six re:Invents and what I call a sport coat ratio has increased dramatically across those six years right? And that's a good thing because hey in the first one there were mostly startups and a few consulting companies, a few other Fortune 500 companies. It's really changed dramatically because what you can do with the Cloud has changed dramatically and it actually very much parallels the rise in the types of services. At the beginning we had network storage and compute, and now we have Machine Learning in a box right, so I think the rise is great and important and shows their stature, but I think it hasn't lost its technology, they very much culturally don't want this to be a sales and marketing conference.

David Linthicum:
So Bill Briggs, obviously AWS is moving up the stack. One of the things, I think when I first met Ken he had something very profound to
say that we're not focused on infrastructure as much anymore but we're moving into the higher level services such as machine learning, even vertical horizontal applications such as Connect. I'm sure that they're going to get into, there's some virtual reality stuff that you know AWS is doing, so it's such a wide range of things that AWS is involved with we're going to see more of that as the announcements come out this week. So what's your take on that in terms of the overall effectiveness into the cloud computing market? Are we focused too much on the higher level stuff, not enough on the infrastructure, we focused about right?

**Bill Briggs:**
So maybe it's a piggyback in the last comment about the more that we see business leaders and kind of the non-technologists here, the fact that we're moving into this suite of you can't separate business and corporate strategy from how do we harness machine learning, cognitive, blockchain, what we call digital reality which is AR/VR, IoT, and so. That it's great to see more people trying to take ownership and that's not just the technology organization's job. They come and tell me what's possible we could do, we call it tech savviness or tech fluency and this idea that the business needs to become much deeper around technology just so we can unlock the ambitions of what we should be trying to take on from customer engagement or from new product or service to bring to market but the hardest strategy being driven by technology now. So, I think it's appropriate as you see Amazon, the platform play, move up into these areas that are at the heart of how do you differentiate? How do you compete? How do you think about the future of your market, your industry, even how industries are blurring in between. Like I just came from a session we had with Charlie, one of the leaders of Amazon's Engineering Group. And in the room was our Global Technology Team within Deloitte; there is also our Global Industry Leaders, Global Strategy Practice. And one of his pieces of recommendation was you all should go out to SageMaker and you should learn enough about machine learning to be able to figure out how to apply to your business. And it's not that hard.

**David Linthicum:**
The executives.

**Bill Briggs:**
The executives. Now, that there was some chuckling in the room, I can't say there's going to be for adoption of that recommendation. But saying that there are Python is the introductory programming language in most colleges now, it's something you could pick up even if you don't have an engineering/computer science background and there's enough tools. And that one announcement I was excited about Amazon opening up the broader Machine Learning Certification and training classes out to the public. To be able to say that something that we need to take on and it doesn't matter where you sit, everyone should be more tech savvy and fluent especially in areas like machine learning and cognitive.

**David Linthicum:**
So as AWS has affected the industry in general, how has that affected the way in which you write Tech Trends?

**Bill Briggs:**
Well, certainly their footprint is a lot more pervasive now. I think if you look back 10 years ago and map tech trends, there where Amazon had a play...

**Ken Corless:**
There was a cloud...

**Bill Briggs:**
There was a cloud one for sure, and ten years ago having a Cloud Revolution chapter was, well you look back now and say it's nice to be right, of seeing that that was coming the way it is, and now you could easily map every one of the Tech Trends and there's a piece of it being realized by Amazon, and then we talked about before I think more and more organizations saying we need to think very profoundly about how do we restructure? How do we think about technology investments? How do we deliver on potential ideas more quickly to the market, and so there is this chance to take what Amazon's done within their culture and more and more clients are looking to replicate it. Now it's hard because they don't have the talent, they don't have the maybe, sponsorship, they don't have the technology stack to build it on, so it's easy to look at the outcome and say, I want some of that. The path to get there is hard but doesn't mean it shouldn't be. I think it's one of the challenges today.

**David Linthicum:**
Yes, I've been asked to do some talks on how to replicate the Amazon culture inside of insurance companies, it's like a base. So Mike, is there going to be a cultural challenge ultimately for getting all these services into the enterprises, the cultures are obviously going to clash upon this and that seems to be the hardest problem to solve I mean you and I have been on lots of projects together and the technology is easy. We can solve pretty much most problems with the technology if there's enough money and time but the culture
within the organizations or the stumbling block need to change what advice would you give the enterprises out there that need to adopt a more agile, more innovative culture?

**Mike Kavis:**
Well, I think they need to take a system thinking approach. A lot of times they look at a point solution as a group of technologists and they can improve something local, but that doesn't scale. The challenges is you need to get everyone at the table in a room and talk about a process and how can we change it because too often it is organizational boundaries, it's legacy processes that get in the way, and like you said we can fix the technology. And one example, I like to use is one client long time ago we did this big process map, and the use case was this, this is a new app right and there is 30-60 days of process and then they get to where they had done all the work CI/CD and they could do a build in a few minutes and it was 30-60 days of process to deploy it. You know, I'm like okay you solve the technology problem, the rest of this is people and process right? And this is this is what DevOps truly is from end-to-end and that's what they have to solve, it's very hard. There's politics, there's people who own organizations, and you're challenging them to tear down silos is a huge challenge and a lot of the stuff is grassroots. As it comes up from the bottom and you solve technical problems but then to solve the entire system and these come top down and needs to be, need to look at organizational structures, need to look at process maps and that's the hard stuff. Ironically the last two years, I probably have, probably all I've been working on, I hardly even log into AWS anymore which used to spend my life on, is dealing with people and process challenges.

**David Linthicum:**
We should have got psychologist, psychology degrees besides computer science.

**Bill Briggs:**
I was going to piggyback on Mike's comment one of the things that I talk about with our clients is imagine if your code and test time went to zero, how much would that improve your pipeline and the scary thing is not much.

**David Linthicum:**
Yes, that's because they're in, it's because we like to, in essence become agile with certain things become agile with DevOps so we're not going to deploy on cloud and therefore it takes six months to get the hardware and software infrastructure in place, and we just don't have the culture. It's able to accept innovation and the speed that's in there and you have to do so holistically. So what's your guidance? I mean what would you tell enterprises to do if they have to change their culture?

**Bill Briggs:**
So, what I see very often happen is a disconnect between IT leadership. So the CIO and CTO are often bought into the change in what has to be different and they're shocked when they hear some of the details of how the sausage is made in their own sausage shop, right? The fact that hey, we can now spin up a full new SAP Testing Environment in 16 minutes and then you go and talk to the SAP team and they said well that's great except that you have to put in a request to get reviewed once a week and then there's an architecture review thing and then a cost estimate and then a final approval, and so yeah we've automated we can spin it up in 16 minutes but it actually takes 30 to 45 days, right? And the CIO or CTO says we've invested in automation, I've done all the right things, they don't see what the machine of processes has been built within their organization. And that's really as Mike saying what you have to go attack.

**David Linthicum:**
So Bill Briggs, this is going to take this to the next logical conclusion and so what we're doing is we're leveraging technology as a force multiplier to allow disruptors to disrupt traditional spaces that never have been disrupted. For insurance, you're in this all the time, grocery business; all these things that really I never thought would be disrupted are now being disrupted and I just read an article on deloitte.com called the “Brand Apocalypse.” I think we're going to see larger brands kind of go away. We have economic changes that are coming forward. Is this going to be the game changer, where it's really going to take out a lot of the bigger players because they're unable to adapt their cultures and adapt to the technology in time to make their way around some of the some of the attacks they are getting from the disrupters in the space or are we being overly paranoid?

**Bill Briggs:**
No, I think I always like to have a continuum. There is the unprecedented opportunity for innovation and growth if you're willing to challenge constraints and look into the white space, and how do you continuously try to move and prove and shape and shift? So that's the upside, it's the hero's journey and the other side is you have the existential threat of disruption is the sort hanging over everyone, every industry and how do you respond. Ten years ago, we started Tech Trends and I would stand up and say, “Oh my God” the amount of change is happening so many different domains it's overwhelming we're in this post singular post moment. When you look back and go how quaint it was ten years ago, the difference is back then we still were talking about its business-led, technology-enabled we're trying to ground it by, this isn't technology for technology's sake, we've taken it, and we flip it now and even our CEO Janet likes to say is
tech-driven and business-enabled because the tech is the thing driving so much. By the way, it's not just tech, there's broader forces, globalization and ecosystems and how it's unfolding, and markets and industries are shifting, and human-centered design principles and behavior economics being baked into things, so as CTO is, I like to lead with the technology sometimes, but even then it's the ingredients that feed into a recipe of how do we think about and craft something different. With that said, the only surety is continued change in and around technology and the relevance of any organization I think is going to be tied to how quickly they can retool and it's not just the TechOp and the delivery model it's the broader funding structure, how do we think about the business has a big piece of – by the way the distinction between IT and it is becoming almost comical as those boundaries get blurred, but there's a lot of responsibility on all told and I think that's the reason why we're seeing more and more CEO's say this is one of the most important transitions/transformations. Ken, we like to joke that we wasted the term transformation and IT over the last 10 years over less noble and profound pursuits, we're finally at that point where it deserves the word transformation. It's just going to be hard because a lot of a lot of processes need to be blown up, a lot of your people, there needs to be a path to get people to tomorrow and the skills that you need in a different way of working but not all of them are going to make it and that's all the way up the org. There's a lot of CIOs that are trying to take on this challenge and you look them in the eye and there's a good chance they're not going to be in that post once they get to where they need to go but I think it is the it is one of the most which is exciting by the way.

David Linthicum:
It is exciting but a bit scary if you're a Global 2000 company that's owned the market for the last 200 years and you've been a brand for around for a while and you actually have the risk of somebody going in disrupting.

Bill Briggs:
Like I said think this is no such thing as too big to fail, there's also no such thing as too small to matter, right. And there's potential competitors coming into the space and potential partners which is why the ecosystem discussion. Great that Amazon is making all these investments and innovations across pieces that matter. We're also seeing a real push to how do we be more disciplined about how do we sense and scan, and how do we actually make sense of and make markets around what might be coming up in the next, you know who, the next Amazon in 15 years. Big clients need to be better about understanding that.

Ken Corless:
The pivotability of business is going to increasingly be valued, right, and you know I look in the IT realm. We've started off with a software-defined network and the software-defined data center (and now we talk about software-defined everything). I think we're heading into the best businesses will be software-defined businesses, the notion that via reconfiguration we can change and pivot to an unpredictable future is going to be a fundamental differentiator for companies that are successful. It doesn't mean they still won't be capital intensive businesses because there will be, but the ability to pivot is what's going to differentiate and that's why a lot of the young companies do so well is because they have that fundamental pivotability.

David Linthicum:
Okay, I'm going to put you guys on the spot. Mike, you're first. What do you think the biggest announcements are going to be made at re:Invent this week that even though we haven't heard about them, don't know what they are, and have no insight as to whether or when they're coming in, what they're going to be doing what do you think?

Mike Kavis:
I got to put my chips in the area of analytics and machine learning. They are just making that stuff so easy, so like one click away, there's probably going to be something in that space.

David Linthicum:
What about you Bill what do you think?

Bill Briggs:
You know cognitive, machine learning, AI; I'm with Mike. I double down on this one place that I'm telling our clients in the place that we're investing, it's infecting everything that we do so.

Ken Corless:
I want to go, we talked a little bit before about serverless and I think serverless virtual servers, basically a Serverless EC2. Not only will it help you with the management, but it actually changes the economics because we know a lot of clients do some big spreadsheet exercise to understand the cost TCO before and after moving to the cloud. I think a Serverless EC2 could really change that equation.

David Linthicum:
So we'll revisit this at the end of the week and see if we came we became close with these things. And so we want to thank you guys for being on the panel thank you very much for taking time out of your re:Invent. I know everybody's busy and I will see you down on the floor show.

Operator:
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