Transcript: Status Go – Cloud Cost Optimization

Jeff Ton: In a 2020 survey conducted by I D. G. They found that controlling cloud costs was the most common challenge keeping organizations from taking full advantage of public cloud. There is a lot of complexity, a lack of visibility and often cloud Teams are too busy to keep up with the technical and operational processes required to control and reduce costs. In this episode of status, go two of inter visions cloud experts lay out some of the fundamental ways you can work towards reducing cloud costs. Dustin Milberg, field, CTO of Cloud Services and John Gray CTO bring you a candid conversation full of action items to help you rein things in if you're already in the cloud or plan ahead if you're not quite there yet, no matter where you are in your cloud journey, there is something in this conversation for you.

Dustin Milberg: So John, over the last I've been at Inter Vision about six months, and every single conversation I get into in some way, shape or form seems to come back to this conversation around managing costs in the cloud and managing a responsible model and establishing a responsible model. So but it's interesting. I've got my own thoughts on this. But before, I sure I'd love to hear your thoughts. Why do you think organizations are struggling so much to control their costs, especially when it comes to the consumption of cloud?

John Gray: I think there's a variety of reasons. Um, yeah, I think a lot sort of in debt start on this journey to the cloud without a lot of discipline. Um, sometimes it's shadow I t. That gets there for them rather than the i t group. Um, lots of reasons, but I think it's also on the actually sort of. It's been helped in a bad way by the cloud providers themselves like a W s their sales. People running around telling everybody how easy it is doing a little bit of training, a bit of POC work, and off you go. And then people try to, you know, get wheelbarrow loads of applications into the cloud and a lift and shift haphazard kind of way, expecting that they're going to save a ton of money. And they don't for, you know, all kinds of reasons. Um, and then it's really hard to see what you're spending money on if you don't go about it in a sort of a somewhat methodical way. Um, the billing that comes at you out of the cloud providers is you know, it's down to, like the subatomic level. It's really hard to see what you're paying for. So, you know, switching from Capex where you paid for service up front in every few years. And it was very easy to sort of understand. You may not be easy to write the check, but it was easy to understand while you were paying for and you know, and then you go Okay. Another five years or three years, we're gonna have to buy a bunch more of those. Now you're paying, you know, after you know, after you've used after you've consumed at the end of the month, right in a sort of utility building style. And it's like you're digging into what happened Why, you know, and you've got this sprawl of services that you are now using, Or maybe people have started something up and left it on, and it's costing money. You don't know. Um, I think a lot of the discipline of, um that went into people creating data centers, right? An actual physical building that you had to get power into and you had to secure physically. And then you had to design and bring hardware and software into, you know, well in service physically, and then make sure that you brought those up in a secure manner, and then you brought your applications into it. You know, with the clouds, you can spin up a data center overnight, but some of those same discipline, architecture and security and thinking through how you're going to govern The creation governs a lofty word that I think people sort of role arise that. But who's going to approve? How are you going to approve? Um, you know, big news spend before it happens. How are you going to forecast all those kinds of things? I think you know, some of the traditional, the good things about those disciplines of, well, last. So I think there's a whole host of reasons, you know, and I could go on on.

Dustin Milberg: Yeah, it's interesting. I think that if you think about the old Data Center model where there was limited capacity, my experience was developers and consumers of the infrastructure would just continue to push until there was no more to consume. And then, of course, they would ring the alarm bell and say, hey, you know, the environments aren't working or right. And so as long as there was no point of resistance, they never they never raised a fuss. And so now there's no resistors, right? Because in their minds, capacities unlimited the thought of turning on the spigot and the fact that water comes out. But there's no thought going into who pays for that water, right? And so, no, actually, yeah, we gotta put, But so how we put guardrails around that while still encouraging those developers to, uh, continue to produce good products and services, that and that we don't disrupt that flow, but that we make it a model that works for everybody, I think is the real challenge. And so I'd love to hear your thoughts on where you've seen organizations be successful. Where you've seen them fail.

John Gray: Um, yeah. I mean, you know, as you know, we talked to gardeners and foresters and various research companies, and I think that they, you know, have done lots of, you know, surveys. And more than half the companies know they're overspending. Um, but they don't really know how. You know, they're also saying they don't really know how to go about sort of methodically controlling expand, right. But it's a major focus for them, as you said. So you know what? What can be done? I think you know, in some ways, it's about building a cost, um, centric, cost management, cost aware culture. Right. Um, as you go, um, I'm really sort of trying to build that in into how you go about architect ng. Um you know, if you look at any of the cloud providers best practices cost, you know, told cost of ownership and cost control is one of the best practices, right? So and there's all kinds of ways that you can reduce costs right in the cloud. But I think that gets lost in the in the frenzy to get there and to, you know, achieve some of the other things the speed that business wants to move at. And then, you know, it gets it gets more difficult, just like in the traditional model. Once you get something into production, it's a lot more difficult than to, um, change it right. You're now in support, so if you can do the things up right up front to get the architecture right, you're in much better in a much better situation. Having said that, there's a there's a bunch of things you can do rapidly to save typically big chunks of money, right? So the first of which is, you know, discounting, right? What sort of you know, credits and other things like that, you know, by buying ahead, you know, reserved instances, those sort of things. What can you do to quickly save yourself some money? Because the part that really should worry p or, you know, worry people. Is that or should be you should be thinking about is it's sort of time versus money. Every month that's going by. You continue to overspend, right? And you're not going to get that money back. It's not like if you bought twice as many services you needed, you could go sell, then you might get a reduced amount. But if you spend the money with the cloud provider, you've spent it, you're not getting it back. So you know, I always sort of think about short term, long term. What can we do in a situation in the short term to grab some, you know, quite often, very significant additional, uh, initial savings while also talking about what we can do in longer term. So let's do the easy stuff, that low hanging fruit, the quick wind. And then, while we're doing that, let's also think about what we can do longer term. Um, and it's almost analysts because things are improving the whole time, right, and they're all driving down costs. I mean, that's the great thing about the cloud. Is the cloud providers reducing their costs? All the time. So if you can sort of architect and stay up with things, you can continue to stay. Take advantage of that.

Dustin Milberg: Oh, for sure, for sure, you know, And one of the things that comes to mind to there's kind of two levels of architecture that a friend of mine for me. And if you hearken back to the last podcast that I did, where we talked about Cloud first means people first. There's architect ng on your

technology, and then there are also architect in your people in process. And I have found that, you know, even though costs may or may not be a driver for behaviors on people, that there are ways to involve them in the in the reduction of this and I've even gone so far in organizations where I've worked for is to say, Okay, you know, organizations that provide the or scrum teams that provide the best output but can also maintain their costs within these guardrails like there's a reward system for that, right? And then and then he turned it into a cooperative Ishan where you start keeping score on it and you put a scoreboard up there and the people look at that. They do. And teams are motivated by success not only getting their code into production faster, but also how they compared to the rest of their peers in the organization. And so I found that even some of the people architecture that cultural actually goes along completely.

John Gray: Yeah. I mean, you right there. Describe how to, uh, create a cost centric culture, right? By making it sort of competitive and fun, right? Yeah. Then it kind of takes off. And I think that the one thing that I like to encourage any of our executive leaders to think about is you pick a metric or two. But don't pick too many, right, because it becomes hard to handle but and measure it and keep score on it, make that score really public, but then come back and then adjust on it. Right, but have a reward structure in place, and it doesn't need to be anything dramatic. But that reward structure where it could be anything as simple as a Starbucks card to you know, your name that goes on this trophy that gets passed around and you turn it into something fun and culturally people start to rally around it. Yeah, yeah, No. And, um I mean, it's amazing how things like that will take off in an organization. And, you know, it sort of breeds success and gets people away from the sort of overwhelming complexity of the big picture. Right? There are so many things you can do, pick a few and focus on. And that's why I say, look, you know, look for the low hanging for the things that you can make some big strides with pretty easily. And what you just described is going to do that because people are going to try to find the stuff that they can do the quickest and easiest come out at the top of the list, right?

Dustin Milberg: Yeah, And then there's other things, too. From a technology perspective, we can obviously do right, leveraging things like spot instances inside of AWS rather than having to go to reserved instances for or even or even on demand. Instances for point in time testing or development is maybe one way, but also, you know, I really think a lot about it. I'm sure you do, too, and I love your thoughts on. How does automation play a role in the cost cutting that people need to bake into their architecture?

John Gray: Yeah, I mean automation. It is very beneficial. It's sort of an example of good engineering principles in many ways, and that you go a little slower to go faster, right? Because if you've got a if you've got automation, you have infrastructure as code for an environment. You are confident about ripping that, you know, showing that environment down and restarting it, and that allows you to make changes and make improvements and re great things. It removes the fear right if you've got an environment that's come up that was built manually by a bunch of people who may not be able to be in your company anymore, Secretary, you're very fearful of making any changes, and it may be that it's costing you a lot. But the consequence of our or changing it not working is even greater. So you live with this over on the costs because you're fearful of not being able to recreate it. So if you've got automation, you can create the environment. You can create a like environment in another, you know, in a test area and start making changes and compare and contrast. You know, the architecture in the span and those are those kinds of things. So if you take a kind of a yeah, an automation approach that is truly a sort of engineered coding approach, it's beneficial in many, many ways and cost control. It's just one of them

because security or two, you can make sure the environments has stamped out the same. They're highly secure, right? So you know that sort of, um, approach. And again, it's almost cultural. It's a mindset. It's sort of getting it built into your culture that you do not start out with them, you know? Okay, let's just create this environment by hand and we'll come back later and automate because that seldom happens. It's we're going to from the beginning, use, you know, code and infrastructure and scripting to automate this environment.

Dustin Milberg: Yeah, I am I every executive I talked to, I mentioned Hey, logging in logging into a console is really a break. The glass activity, right? You should be thinking about how do I do? Everything is code and looking at all six layers of the platform, the infrastructure application, data security policy and pipeline. And once you get their organizations to your point, you made this earlier. You know, not only reducing costs, you're reducing risk, and you're reducing security facilities, which also are huge. You know, they're lagging indicators of cost increases, but certainly if you can control those up front and you pay dividends on the back end if your infrastructure you know, another lofty word is immutable in that you can't change it. So you don't go on and patch. You don't even log into service to make changes. You just, um, kill them and bring up new ones.

John Gray: Yeah, yeah. And you do that using code. You know, now what? You're going to be able to rapidly make changes. You know, that you don't have to worry about security issues you're not spending money on. You know, a bunch of people pouring through logs because you're not having events, you know, um, so you to your point, you're saving money in other places that you are not just you're a w s or is your bill. It's your You know, the amount of people you've got sitting around monitoring things goes way down because you just don't Things are not happening. Yeah, if you don't have a security incident, you've got far fewer penalties. You gotta pay. And customers are happier, right? So we think about net promoter score and customer retention and customer experience. And, you know, surely organizations are measuring that, but the costs that come with losing customers over bad deployments Oh, yeah. And if exactly if you're sort of focused on, you know, another pillar operational excellence right in that your deployments are extremely smooth and regular and automated. Then you know you don't have things failing in the middle of night and people hacking into just get something running and, you know, or having to get, you know, the upsides the size of servers just to get them to run it. Now that you've got bigger bills and potential security holes because they make changes. So you know a lot of these best practices, you know, cost savings, performance, operational excellence. Um, security are all woven together, right in the way. You use automation infrastructure as code and just generally use sort of solid engineering principles behind this.

Dustin Milberg: So john and listening there you hit on a lot of the critical components of any well architected environment. And in order to look at not only cost savings but also reducing risk in the other areas, I think about kind of how to organizations become more excellent operationally. How do they look at security holistically and reliability and performance and costs are all part and parcel to that. That really strong customer experience. And so, what kind of trends are you seeing around how organizations analyze their environments for and what are the best practices for for hitting on all those critical components to a platform?

John Gray: Um, well, I mean tools, Yeah, are a good way to start. So, you know, using various you know, whatever the platform is using the tools that are available to do monitoring and assessments of environments is a way that we typically stop what they have. You know, once running, how's he doing?

You know what things can we see? As far as any issues then, starting to sort of talk about those to understand where those kind of overlap with the most critical areas of their business. Right. So this is you know, we've talked a lot about technology and a lot about tech tech tech, right? What I we really try and do is understand the business that really understand the broader business context, Um, the rhythms of their business. You know, Is it something where you get, you know, big weekly surgeries, monthly quarterly? Yeah, really Sort of understand that. And then look at the technology and this, you know, that is cloud or anything. Um, and see how the how technology is sort of overall enabling their business or constraining it or a mixture of the two. Right, and then identify you changes that will solve multiple problems. Right. So this then, sort of obviously cost is always a big, big thing. Right? Because if you can free up money, you can then start to do, do things with it, right? So then make improvements in other areas. Um, particularly, you know, covid is his really impacted? Obviously, a lot of people, both in negative ways, but also positive. I mean, it's creative changes, you know that that ultimately I think you're getting a little better. I mean, people. Yeah, remotely invention. Right? Exactly. So you know, bandwidth and all those things is going to improve and secure. You know, CSO security officers suddenly have 5000 office locations to secure rather than one because all the people are working remotely. Well, that's a major headache initially, but it's gonna lead to much improved offerings and, you know, at better prices and all of that. So, um, right now a lot of the world is you know, a lot of things are thrown up in the air and there's all kinds of change going on, but it’s a great opportunity to make some improvements, right.

Dustin Milberg: It is, you know, one of the things that I keyed in on that you were talking about, and it seems so obvious. But a lot of organizations miss it is. How is the work that the technology organizations are doing, whether they be I t or they be their engineering organization or contribution of both. How are they affecting and impacting the overall success of the business? And one of the things that that kind of dawned on me as you said? I hear organizations, especially it organizations say a lot. Oh, we need to find out what the business wants and one of the things I encourage, especially technology leaders, is to get out of that mindset of thinking about what the business wants, instead, think about themselves as an integral part of the business. I once told one of my one of the people that is kind of in a group that I meet with regularly bounce ideas off of, and I he wasn't quite grasping this concept, and I said, Well, next time you don't think you're part of the business, tell your entire organization to take a three month sabbatical and see how well the business actually functions right? And so I know it sounds like a kind of an obvious thing. But if organizations, you know, we talk about making that culture shift. If you really consider yourself as a technology provider within an organization integral and an integrated part of the business, um, then you get more visibility into what's going on from everything from cost to security to risk, and then that that that trickles down and it starts to embed itself into the culture of the rest of your organization and how you behave and how people contribute to the success. Um, so it just it seems obvious to me, but it and it's obvious to a lot of folks. But it's interesting that we don't necessarily behave that way all the time.

John Gray: No, I mean, you get caught up in so many things, right? There's so much moving. So, um, you know, you made the point earlier about simplifying, choosing a few things, I think, Yeah, being able to sort of separate concerns and then focus and measure and really gain ownership across your organization. So pulling in the right people into these initiatives around cost, you know, and all of that. So that because, you know, in in many ways, we've still got a we've got a sort of culture and I t that's still quite separate from financial aspects of the company from, you know, from the accounting and we, you

know, we measure cost in certain ways, and it's not integrated with the systems. That accounting team, she is generally right. But if you can understand and this is generally how I approach it is, you know, how are those teams looking? The accounting and financial teams looking to budget and account? Yeah. How does an organization when we work with them. How are you funded? How are you? Public sector organizations that I work with? Where does Yeah, you get grants? Do you get understand that because the op ex model is more difficult for organizations that are funded in certain ways. And it is for others. So, you know, and then there's actually sometimes well, okay, so you really want to go with more of a Capex model will do that. You'll buy ahead and you'll have extreme discounts. So you know, if you can get to understand the key decision makers in an organization and what is on their agenda and how they look the world of cost, I think you can then start to get everybody talking in a common language, right? A common vocabulary across those different areas. And then it's not this, you know, sort of mystical cloud thing that it's, you know, it's old as okay, this is just gonna be this panacea that's going to solve all your problems, and nobody buys into that. I mean that, you know, every new technology is kind of position that way, right? And nobody believes, quite rightly, you've got to sort of show the things that will be beneficial and, quite frankly, the things that are going to be more difficult because if you look at, for example, a traditional sort of server environment with batch cycles and things like that, it's very old school. But it's pretty easy to understand things get processed at the time of day. You know, this job does this and this does this, and it's not very complex to understand. Whereas a serverless environment, you've got something coming up and running a piece of logic for a nanosecond, right? You're hardly spending anything on it. That's great. But how do you troubleshoot, debug Monitor that it's much more complex, you know? You know, um, if you don't sort of think about it and set it up and monitor it in the right way going forward. So So there are pros and cons to everything right? And I think if you can get the, um, some level of awareness and education across the the organization to your point so that it's not I t separate from the business people jointly owning and making decisions, the governance, right. You've got the CFO, the CEO of the head of whatever business group leaning in and owning the overall plan. And you know, the action plan, right? It's not just, I t saying, trying to browbeat them into doing something, and then when it fails, its I t s fault it's jointly owned, right?

Dustin Milberg: Yeah, it's interesting, you know, as I listen to you talk. Really, it's about demystifying things by direction, right? Often, the technology organizations don't necessarily understand how the finances work, and certainly the financial people, they're the first ones to throw up their hands and say, I don't I don't declare myself any kind of technology expert here and then it's usually followed up with. But I'm going to tell you how much you have to spend on these things, right? And in the old Capex model, where they go and buy the infrastructure. It was just like, well, here's the capacity you have figured out how to make it work. And now, if we go back to automation and the ability to tag instances and demystify where resources are actually being spent, your financial team gets better visibility into the cost modeling of the consumption, and now your technology teams start to think about the expense associated with that. And now all of a sudden, you start speaking a common language, right? And that's really where we get to the art of thin ops, right?

John Gray: Yeah, yeah, yeah. And you can start to apply things like tagging and, you know, chargeback show back and things like that, um, that to really sort of start to measure, predict forecast, um, and gain some control and confidence. So I think it's like many things crawl walk around, you know? You build it in phases.

Dustin Milberg: Well, this has been a great chat. I I'd love to leave folks with a call to action. I'll give mine that. I'd love to hear yours, you know? So my call to action to anybody who's listening to this is there's invariably ways to save money. Um, I recommend highly starting with that building a culture which is established on understanding what motivates your people and how to encourage them to think about ways where they can be part of the cost savings effort and look for the right kinds of partnerships to help proliferate that and establish good behaviors and hygiene upfront that we might call to action for anyone listening, John. Anything you want to throw out?

John Gray: Yeah, My call to action is just do something. Don't sort of, um, let time go by because each month that's taking you are overspending. So address Pick an area, address something, and then at least start some movement within your company.

Dustin Milberg: John, Great conversation today. I want to thank you. I also want to thank all of our listeners for tuning in. I would encourage everybody to go get more information up at inter vision dot com.

Jeff Ton: What a great conversation Full of information. Like Dustin said, go to inter vision dot com to learn more. Will also include a link in the show notes to our upcoming Webinar. Optimize your WS investment. Practical guidance to simplify cloud costs you won't want to miss it as always. Thank you very much for listening.