

Jason Lopez:

BAE systems is the biggest defense contractor in Europe, the third largest in the world. But it's not only a vendor in Europe, Australia, and Saudi Arabia, but to the U S government. BAE provides critical assets like the Bradley fighting vehicle, as well as guns systems used by the Navy and army. But the company also provides information technologies to the department of defense. Much of it is classified. So you might wonder what there would be to talk about with Nandish Mattikalli. He's the chief engineer for the intelligence solutions business within the intelligence and security sector at BAE. This is the tech barometer podcast. I'm Jason Lopez. In another story with we covered security, but here we talk about the hybrid multi-cloud from the point of view of a vendor with an utmost critical mission.

New Speaker:

So let's talk about hybrid multi-cloud when did BAE start using it? And, what are its advantages?

Nandish Mattikalli:

BAE systems has been an early pioneer of multi-cloud. We had data centers or the internal consumption. But for customers, and there was only one cloud. We realized that there needs to be a way to allow another cloud provider capability. Our customers are always concerned about vendor lock-in. So in one of our earliest large programs we're pioneers of developing what was an abstraction layer, called the data abstraction layer we put in, and that allowed us to move the workload away from that one particular cloud provider in case a customer wanted to move. And, that was a significant innovation that we had. And these days it's more than a requirement than an innovation to be able to do that. So we were thinking about creating the solutions for our customer. When we had only one cloud provider, we were really getting ready for eventuality of multiple cloud providers. And that's the reality right now.

Jason Lopez:

Well, what's it like to build defense systems and apps powered by hybrid multi-cloud?

Nandish Mattikalli:

So there are three things for the defense systems and acts right. Security, always by default, one of the criteria. But the expectation has changed in the customer space that they need the capability faster. So rapid development and the deployment of minimal viable products. The second one is in order to achieve that the deliberate reduction in the avoidance of some of the development cycles. I will give you an example. In the development of a desktop, as a service Nutanix, for example, has frame technology. Using Nutanix frame technology we don't really have to go through several of the development activities that we had to go through. So what we are doing is we are deliberately eliminating some of the traditional steps so that we are embracing innovations in the industry and using the capabilities such as Nutanix frame.

Jason Lopez:

Right? So are you referring to eliminating the physical infrastructure? Is that sort of where you're going?

Nandish Mattikalli:

It is not just the ability to eliminate the physical infrastructure, right? Not only the level of effort that we have to go through as a system integrator, that some of these technologies will help us cut down on those tasks internally so that we can deploy those capabilities faster. So if you had ask us how long they

took to develop the desktop as a service five years ago for our customer, that would our take on anywhere from six to nine months. With the new technologies from art most such as Nutanix and others, we can reduce those development activities so that we can deploy capabilities faster.

Jason Lopez:

So Nandish, what is it that hybrid multi-cloud enables for BAE and really your customers as well,

Nandish Mattikalli:

Multi-hybrid multi-cloud will really enable the customer's mission to do the edge computing with the ability to run various workloads in different security domains. That is one thing. The second one is the hybrid multi-cloud, in my opinion, truly will help us and our customers realize the benefits of cloud. Treating that as a commodity and pay only for the services that they consume. If I'm able to take my data from AWS, if I realize that the AWS storage charges are expensive. If I can take it to the Azure without much hindrance, that's the true benefit of being multi-cloud. And it really solves the problem of vendor lock-in. The multi-hybrid cloud will truly help us as a system integrator and help our customer to anticipate the expected costs of computing and storage and costing, not surprised by the bill that they get at the end of the month,

Jason Lopez:

You know, in a roundabout way. It sounds like what you're saying is a multi-hybrid cloud prevents monopolistic behavior, it sort of stokes competition in the industry.

Nandish Mattikalli:

Yes. And that is the idea. But these big five cloud providers, they have inherently a vested interest to control customers buying. And when I say cloud providers, I'm talking about AWS, Microsoft, Google, Oracle, and IBM, the big five. But I believe that as a system integrator, it's our responsibility to help our customers to navigate through those designed constraints. But we are fortunate to have some relationship with other key vendors such as Nutanix, Dell, so that we can help our customers.

Jason Lopez:

So I got a what if question for you here? And it is this, what would it be possible to be only cloud or only on-prem in the future and the way that you see things?

Nandish Mattikalli:

It is possible, but I don't think it will happen for our particular customer base. Some workloads are so sensitive that they can only be done on prem or in a very enclosed infrastructure. And then the need for edge computing for, in several of the programs that we're working for the air force in particular, that the need for edge computing, where there is a limitation on the bandwidth or connectivity requirements, we will have to do a hybrid cloud as well. And the cost is a major concern. For example, if they were to store large amounts of data for ongoing processing, they are sensitive about the costs of data ingress and egress in the cloud computing environment. They're thinking about, "Hey, do we need a only cloud or we need a hybrid approach." And I think hybrid approach is the way that will prevail I believe

Jason Lopez:

Right. And, you know, we could end it right there. But, uh, I just wonder if you could sum up what we've been talking about here or this idea embracing the cloud and what it brings?

Nandish Mattikalli:

So for us, as well as, and more importantly, for customer, it is about embracing the shift that's happening in the marketplace and really leveraging those shifts to realize the benefits of the technology transformation that's happening in the marketplace. What we are doing is taking our customers along the journey and helping them achieve the mission in terms of the time space and cost.

Jason Lopez:

Nandish Mattikalli is the chief engineer for the solutions business at BAE. This is the tech barometer podcast. I'm Jason Lopez. It comes to you from The Forecast and you can find us at [theforecastbynutanix.com](http://theforecastbynutanix.com).