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RunAs Radio is a weekly Internet Audio Talk Show for IT Professionals working with Microsoft products. The full range of IT topics is covered from a Microsoft-centric viewpoint.



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David Sengupta Thinks In the Cloud!
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[Music]

Brandon Wenn: From runasradio.com, you're listening to RunAs Radio, the Internet audio talk show for IT professionals with Richard Campbell and Greg Hughes. This is Brandon Wenn, announcing show #99, with guest David Sengupta, recorded Wednesday, February 18, 2009. RunAs Radio is produced each week by PWOP Productions, providing professional media and podcasting services online at pwop.com. You can follow the boys on Twitter at twitter.com/runasradio.

Richard Campbell: Yes, you're listening to RunAs Radio. I'm your host Richard Campbell and with me as always my co-host, Greg Hughes.

Greg Hughes: Hey there, everybody. Richard, how are you today?

Richard Campbell: I'm doing well, sir, and you know, Show 100 is impending.

Greg Hughes: Yeah, coming right up.

Richard Campbell: I didn't expect it to go quite this quickly. I'm surprised and delighted.

Greg Hughes: Yeah, it's been a lot of fun. It's almost a couple of year random we've been doing now.

Richard Campbell: So far so good, I don't know when it's going to end. I hope it doesn't anytime soon, and we've got our usual raft of conferences. I'm just about to put a bow on TechEd U.S. for us.

Greg Hughes: Yup, another busy conference year.

Richard Campbell: Yeah, definitely and although TechEd U.S. this time is only going to be one week so the IT and Dev are going to be mix again which means you, me, and Carl will all be together for a change.

Greg Hughes: Right and that will be fun for all three of us to be there. We were together for the Connections conference I guess for just one day when I was down there.

Richard Campbell: Right.

Greg Hughes: All three of us were together on that one day so it's always kind of good to be able to all get together in the same place.

Richard Campbell: And it looks like I'm going to be organizing Speaker Idol again so get a chance to find new speakers for TechEd.

Greg Hughes: Yeah, anybody out there who is interested who you know, is a presenter or feels like you would be a contender to present at a conference at the caliber of TechEd, get a hold of Richard because he is the man.

Richard Campbell: Yeah, you bet. The rules are simple. You have to be an experienced speaker, you could never have spoken at TechEd before, and you have to be attending TechEd. Fire me an email at info@runasradio.com and see if it can make you a contestant.

Greg Hughes: And for that matter, if you have any ideas for future shows or questions or thoughts or comments, you can also use that email address there, info@runasradio.com.

Richard Campbell: Awesome. All right, let's get to our guest. David Sengupta is the Director, Unified Communications for Quest Software. He leads Quest's UC business, including Microsoft Exchange, Office Communications Server, archiving & electronic discovery, and other messaging systems. A seasoned enterprise software industry veteran, David's experience includes senior positions in the public & private sector, enterprise systems management, hosting, startups, infrastructure consulting & legal discovery. A Microsoft Exchange MVP since 1998, pretty much since the beginning of Exchange, Sengupta has contributed to most Exchange & Windows magazines, & many books & white papers. He is a frequent speaker at global events including Microsoft Tech-Ed & IT Forum. He has worked with Microsoft Exchange since its inception. See, I called it.

Greg Hughes: From the very beginning.

Richard Campbell: David has an M.T.S. from Tyndale Seminary, Canada, a B.Sc. from University of Ottawa & an MCSE Messaging. He lives near Ottawa, Canada. Welcome David.

Greg Hughes: Hi, David.

David Sengupta: Thanks, glad to be here.

Richard Campbell: And it was commenting you were show #2 and here you are at #99.

David Sengupta: That's right, it's been awhile.

Richard Campbell: So it has been awhile and we were talking, before we start the recording here, just a little bit about Cloud computing and obviously that's top in the minds of lots of folks these days. Where does it fit in in Quest's look these days?



David Sengupta: That's a good question. I mean, Quest as you know has been doing a lot around management of unified communications environments notable Exchange and Office Communications Server migration, that kind of thing, so with the move to Cloud computing, it's one of the first applications that organizations are looking at migrating to the Cloud and so obviously there's an interest from a class perspective and also from the industry as far as adaption and some of the challenges that come up.

Richard Campbell: What's fascinating to me, email is a great applications because I think it hits all the concerns around Cloud computing as much as the advantages. This just compare the idea of like Gmail, wouldn't that effectively be Cloud email?

David Sengupta: Yeah, absolutely. We're seeing organizations considering moving to any number of Cloud providers. So Google apps with their email and counteracting and Google docs is one option, Microsoft with their business productivity online suite with their Exchange online and SharePoint online and other components is another, and then some are looking at IBM or have been using IBM syndicated hosting, Cisco has obviously entered the fray as well so we'll see where they take their post path acquisition and some of the other pieces that they're assembling, and then there's a number like smaller players, you know, the Intermedia and Uptech and MindShift and LiveOffice and others. So there are very busy space right now and lots of activity.

Richard Campbell: I'm just trying to decide if anything has actually changed between what we call the application service providing and now that we call it Cloud.

David Sengupta: Well, I think one of the important elements is just that there had been a lot of time spent between the whole ASP wave which was in '99 or 2000 or so until the bubble burst. I was a part of that fact then and it was quite a challenge to get Exchange 2000 at that time to work in a multi-talent type of environment. Microsoft and other platform providers have all been investing heavily in aspects of multi-tenancy, in some cases virtualization, to enable some of these technologies and also we see the internet ubiquity and bandwidth and all that kind of thing being a lot more mature than they were 10 years ago.

Greg Hughes: Doesn't Cloud computing mean different things to different people? I mean, I know there are certain definitions of it but so far we've touched on a couple of different things. I can put my data out there, I can use a hosted Exchange or a hosted what-have-you service provider, but Cloud computing now also, especially in some of the newer

things that are going on, means I can actually take my applications in the software that I create for example and run it out there "in the Cloud."

David Sengupta: Yeah, absolutely and there are many elements and different spins on Cloud computing.

Richard Campbell: Yeah, I'm worried that most of it is spin and not products.

David Sengupta: There may be a different perspective in some Cloud computing, some would take the software as a service approach or the software plus services approach, for example Microsoft approach, Web 2.0. There are many different elements so I think the space is still very young and there's a lot of maturing to happen over the next 5 to 10 years.

Greg Hughes: When you speak with your clients and the people that you interact with on a daily basis about Cloud computing, maybe we'll step back a little bit, I'll be the step back guy here really quick, if you were going to define and describe the Cloud computing to somebody who just doesn't have a fundamental understanding of it, what's your elevator speech or how would you distill it down and make it understandable to somebody?

David Sengupta: One of the ways of thinking event is just that the firewall and servers existing within the corporate infrastructure that's all blending into service locator or remote data centers, being able to talk to web services and another protocol across the internet and becoming very almost irrelevant where the service are actually located. So this whole abstracting of server farms and all the infrastructure that typically organizations have had to manage themselves, we see some of that moving to outside of the Cloud to Google, to Amazon, to Microsoft, to third party hosting providers, and we also see this concept of sort of virtual private Clouds happening through virtualization. So those are the two vectors that we're seeing some interesting things happening.

Richard Campbell: I guess we're going to dig into the core complaints that most people fear around Cloud computing which is, dude, where is my data? Doesn't it really come down to that if I'm firing my business secrets, my IP into some server somewhere that I don't have control over?

Greg Hughes: Right or if I'm responsible for somebody else's sensitive information and how I store it because they could become damaged by sort of a third party thing. What are some of the decisions that people have to make when they think about what to do in the Cloud and what not to do in the Cloud?



David Sengupta: Well, as you've mentioned, where your data is is obviously a concern and so in some cases we have organizations that have regulatory or legal concerns as far as what they can and can't do with their data.

Greg Hughes: Sure.

David Sengupta: Whether that data is in a different country, where the datacenters are, and some hosting providers have actually been very reticent to even reveal the location of their datacenters which could be a challenge.

Richard Campbell: Sure.

David Sengupta: With Google, there's always the perception that, you know, hey this guy makes a lot of their money out of that revenue and they do that by indexing your data and showing pop-up ads alongside, and obviously with Google apps, when you sign for premier, you don't get all that but there's always that subtle worry that, hey, maybe these guys are still indexing all of my data and what are they doing with that, and those kinds of concerns. Facebook obviously doesn't apply to enterprise hosting perspective but we've seen a lot of noise just this last week around Facebook...

Greg Hughes: Right.

David Sengupta: And what they could say that they could do with data and all that kind of thing. The same sort of thing applies to any kind of hosting provider. So one of the concerns that we hear, especially with enterprises considering moving to Microsoft or Google is just this perception, rightly so I think, that they want to actually encrypt their data when it's stored or when it's in transit across the internet. I think we'll see that whole data encryption start to play a much bigger role, and then that brings a lot of challenges as far as if I'm hosted, let's say all my email is hosted with Microsoft and now I've got some business partners that I want to communicate with, I need to be able to be able to decrypt that data whenever I send it to those but keep it encrypted while it's in the host and so on.

Greg Hughes: So is that an argument maybe for sort of the next phase of Cloud computer or the current big push that we are seeing some of the vendors doing now which is I can have, like you've mentioned, a virtual Windows or Linux or what-have-you, a computer that runs in the Cloud so I can actually have all the control over that, I can get complete access as to how the application runs and what the standards are that I run it under and how that information is encrypted or what-have-you but still leverage the Cloud infrastructure.

David Sengupta: Yeah. Amazon has done some interesting things with their elastic compute Cloud that sort of relates to what you're talking about, being able to spin up any number of different servers and it tend to be more focused on the burst computing side of things but we think that this is something that's starting to happen more and more. Historically, when you look at IBM and Microsoft and a lot of the hosting that has happened so far, it has been more of a dedicated kind of company that just wanted to outsource their IT infrastructure to end up all of these servers and manage it essentially in an extension of their private intranet except that extension goes to the host. So they definitely continuous to be that what we're loosely referring to as a dedicated hosted infrastructure whether it's at Microsoft or IBM or any number of other providers. We think the technology is evolving pretty quickly so that those providers, one of their challenges is how do they do that across effectively, and so we see a real shift happening towards being able to use multi-tenant type system, and so we see vendors investing heavily in core apps or messaging and so on to make them multi-tenant so that they can have the lower price and ship solutions that meet SMBs, for example, that kept paid for or can afford in many cases. A dedicated infrastructure adds some poster.

Richard Campbell: Yeah, there's sort of axiomatic thoughts that I keep having around this like you're going to buy into this Cloud computing model, you have to believe that they can run it less expensively than you can, what your charge cost you less. It's just purely ignorance play. We don't understand how to do this well but they do so we pay them to do it.

David Sengupta: Yeah, that plays a big part and we are hearing at least some of the early feedback that we're getting and obviously that is heavily tainted by some of the case studies that many of these vendors are looking to get out because they're still trying to attract their early adaptors to their platforms, but obviously depending on the vendor and their experience, there are many cases where the service provider can actually give you a better level of service. Challenges abound whether it's internet connectivity, having to make sure that you've got the best connectivity there, you need to select a vendor that can give you the service and that's going to be around for a long time, they can't really give your posted data off to someone who probably doesn't have the vendor viability that's required of course. Many players of all sides is in the hosting business so we think there can be a lot of consolidation in this space as well, but the timing is actually very good for Cloud computing in general especially around hosted Exchange or hosted email with Google apps and so on. How many have the impetus to look for cost controlling measures or cost-cutting measures in the



pricing that they're seeing with Exchange online or with Google apps is very attractive.

Greg Hughes: You know, it's interesting, I had a call this morning from a client of mine asking me about some detailed questions because they've made the decision now to move from hosting their own email system to going with that outsource application in the Cloud type of model. So it is happening more and more. I mean, in Quest, are you guys looking at like economy scale and some of the savings? Are there any general rules that companies can take into consideration when it comes to what does it cost to do X versus doing Y?

David Sengupta: At Quest, we're not actually doing the hosted Exchange and so we're leaving that up to the providers to do that. We see our role as not so much convincing people to move to Cloud computing, we leave that up to Microsoft and Google and others.

Greg Hughes: Sure.

David Sengupta: We're really focusing on how can people manage and move, and so one of the big challenges right now is how do customers on board -- often we're seeing people move from notes to group-wise. For example, Exchange online, and so we have a solution that will migrate them from their own premises notes environment or their own premises group-wise environment up to Exchange online to migration rules that they're comfortable with.

Greg Hughes: Got you.

David Sengupta: And so we start sort of with migration and then management becomes part of that as well.

Richard Campbell: The two kind of goes on hand in hand. I think that the thing, as an IT guy I just get the willies around, who is actually backing up my stuff, how reliable is it, what does disaster recovery look like. Is there anything more helpless than the system is down and you can't get through to the guy, you know, that whole scents that we have less?

Greg Hughes: Help, I'm falling, I can't get it back.

Richard Campbell: Yeah, we're giving up a sense of control arguably and really that gets us to the next question, is it all we're trying to do here is save money?

David Sengupta: In most cases it's either saving money or offloading something that isn't the core competency for an organization. Let's say they're financial institution, they don't want to have a

maintaining competency in managing large databases or email systems or all that kind of thing. There's a performance element in some cases as well if you got organizations that really struggled with maintaining a reasonably functioning email system then being able to upload that to something that's more reliable. It does play a factor in some cases.

Greg Hughes: You mentioned financial institutions, there are a lot of complaints associated with the financial industry. What are you seeing are the considerations that regulated industries need to take into account when they think about outsourcing things? I mean, I think about instant messaging in a bank for example. I'm sure you touch on this in your work, it's that there are regulations around recording that type of information and information around how it's retained in email and other types of data. Is there resistance in those sectors to use the Cloud or are you seeing that there are organizations that are finding that it is usable and there are ways that they can do it?

David Sengupta: From what I've seen, I haven't seen the full spectrum of what Microsoft or Google would see, but from what I'm seeing, it's the heavily regulated environment tend to keep the data themselves, they don't hand that off to the hosting providers. There are options. For example with archiving solution, we our archiving solutions we can have an on premises safe harbor copy of everything that is sent off for example to Exchange online for vendors who are looking at doing that, but for the most part of the heavily regulated industry that I've been aware of, they've been keeping the data in-house.

Richard Campbell: One of the things I've noticed in the culture of heavily regulated industries, I think in healthcare and financials, about any big corp that's facing SOX to some degree is afraid to challenge the rules. They don't want to be the first one to find out, hey, actually this Cloud computing implementation is SOX compliant. We've got a regulatory trap going on right now where nobody is willing to be first to find out if that's compliant or not.

Greg Hughes: The difficulty is that there is really no such thing as SOX compliant.

Richard Campbell: Right.

Greg Hughes: So it is difficult to know whether it's safe to take that step.

David Sengupta: I mean, we're in a real proving ground right now as far as hosted emails system and so the hosting providers are incredibly focused on high availability and security and identity federation, that kind of thing. Those are really their primary



concerns right now as far as if they have -- I mean, anytime Google, for example, had outages you read about on all the blogs and news media, that kind of thing, you know, they're being incredibly heavily scrutinized and so a lot of the investment right now is just making sure that: a) those systems are up all the time, b) the solution offering, at least the proceeds availability is there so things like Cache Mode, for example, really help in that clients don't always notice if there's a small bleeper, that kind of thing, if they're using technologies like that and really just making sure that for the most part we're hearing or we're seeing the host has just created a black box that just know and can't get it and ensure from a security standpoint or even from a management stability standpoint.

Richard Campbell: Yeah and I guess that's the thing. How much effort have we put into as IT folks in the past few years for transparency into our system and this seems to be the opposite of that.

David Sengupta: Yeah, it's going to be very interesting. I think, like I said, right now we're sort of in the first wave where the hosts are just really focused on proving themselves. I think that there's going to be as adaption grows, customers are really going to start pushing back and asking for what does it mean to have a single pane of glass for example to see where all my data is. I might have some data off on Google apps, I might have some others, you know, some information stored at Live Office, I might have something off on Microsoft SharePoint online, what does e-discovery look like in that context, I've got a lawsuit today, I need to produce all my evidence I need to do within a certain period of time, do I have SLAs established with all these vendors, what are those SLAs, what are the costs for me, there's a lot of complexities in this kind of a hybrid scenario.

Richard Campbell: Sure.

Greg Hughes: Well, you can see that you'd probably end up having different types of Cloud hosting providers providing different levels of SLAs and it's really just kind of another flavor of what we've always done. You pay more for high availability, you pay more for 24/7 response, you pay more for monitoring which is kind of the way it works, but the infrastructure is what's really changing.

David Sengupta: Yeah, for sure and the lack of control. I mean, to me it's interesting. I spoke in a company just recently, 150-person company, I mean, these guys have data with Google apps or Gmail, the recent Post Genie, they've split up the high priority users and sort of low priority users within the organization so they've got some hosted Exchange, some hosted Gmail, they've got sales force, they've got BlackBerry and other mobile devices, and just a

co-existence scenarios alone are incredibly complex. I mean, how is your email routing through your environment? I mean, these guys have a simple issue that was sort of Google and Postini are sort of fighting about whose it was and it took them like 40 days to resolve. So I mean there are some incredible challenges that can come up when not all of the infrastructure and levels of service are there as you would expect. I mean, not all hosts have the same 24/7 support lines or ticketing systems where you can open a troubled ticket that companies are used to having internally.

Greg Hughes: Yes. As the person directing the operation of your IT department, there is a certain amount of inner potential or real benefits to being able to walk over a couple of desks and say, hey, you two or three people, come with me, we're going to sit down in this conference room until this problem is solved. You don't really get that when you have no number to call, to call Google to get support or to talk to Postini for example.

David Sengupta: That's right and I mean readiness from a hosting standpoint goes beyond just the technology and the support. I mean, it goes into things like how easy it is to try out, you know, if I want to just try out a hosting service for 30 days, 60 days, that kind of thing. You know, migration I mentioned and provisioning and what does management look like, but I mean in many cases a lot of the early discussions that I'm hearing, especially in the SMB type and SOHO space, is Google versus Microsoft. Google comes in with a much lower price...

Richard Campbell: Right.

David Sengupta: It gives you 25 gigs of storage, Microsoft gives you much less but then you get into a whole -- you know, it's sort of religious in a way in that some people really like, you know, they swear by the Google space, the Gmail they love the simplicity of it, all that kind of thing, and then you've got other people that tend to be more from a corporate environment that have been using Outlook for years, they can't understand how people could like Gmail, they're used to having their offline client when they're on a plane and all that kind of thing, and sure Google Gear is out, it's in beta, they're all up on the beta software on their machine, they don't quite get the whole offline client thing for web browser, and so there's just a lot of, I don't know what you call it, but just that split community between Google versus Microsoft that is heating up right now. Things like the G1 Phone and the iPhone versus BlackBerry, versus Windows Mobile all play into this as well.

Greg Hughes: And overtime it's more and more polarize type of society around those things too, isn't it?



David Sengupta: It is. It becomes like the Mac versus PC kind of story.

Greg Hughes: Right.

Richard Campbell: Well, I think the sort of ghost in this whole thing is Amazon. I mean, I like Amazon's core message of we have this big infrastructure, we're not using it all so we'll rent some of that out to you, which you can really buy into the sense of if it's good enough for Amazon to use, it's good enough for me to use but it's also not a straight up email offering or anything like that. It's components of applications.

David Sengupta: Yeah, Amazon is very interesting in many ways. I mean, Bomber itself has implied that they're headed to a curve and that we all have a lot to learn from Amazon. Some pretty phenomenal -- mean, you look at Animoto for example and the story of how Animoto and their video editing and all that kind of thing came about and how they're using just easy technologies to be able to burst and handle the big volume of customers in generating videos and all that kind of thing, very interesting model but like you said there's no email, it's more of an infrastructure play almost in some ways, I think it's similar in some ways to Azure or Blue Cloud or that kind of thing.

Richard Campbell: Sure and yes, that's the other angle of this. It's not just taking services you have today and outsourcing them but building new things using this infrastructure to lower the barrier of entry to creating a scalable application or something that's worldwide.

Greg Hughes: Yeah, the distributed component of that application, that high availability and the global distribution of the infrastructure, that's something that for any individual company, except for maybe the biggest companies in the world, is a pretty costly and expensive thing to do. So that's probably one tangible benefit of that type of infrastructures, you kind of get that for part of the package.

David Sengupta: One of the things that when we look at and talk to customers that are considering all this, I can underscore how important it is for companies to really be proactive about Cloud computing and actually have a plan in place or some sort of a strategy as opposed to just going piecemeal, putting a piece here, putting a piece there, because the piecemeal approach ends up with this massive mess, as we have talked about before, amount of complexity, data all over the place, and you end up with this very distributed out of control -- I mean, if you think public folders can be messy when you get end-users use them wherever they are for whatever they want them for, I mean this just gets multiple orders of

magnitude more complex as far as data that is all over the place and can get out of control very quickly especially if end-users are empowered to put their data in different places or stuff like that. It makes PhD's look almost great. So we have to keep in mind that there already many pieces of technologies that customers use that have essentially a Cloud component to them already.

Richard Campbell: Sure.

David Sengupta: The BlackBerry realm, I mean really there's a Cloud component there if you think about it. Google with Postini, you know, many organizations are using Postini today which is obviously one of the ways that Google gets into those clients to build out from that, salesforce.com, Great Model, and many others as well.

Richard Campbell: Well guys, I think we're getting down to the end of show here and I feel like it's been all doom and gloom, that this has all gotten up to the problems.

David Sengupta: I don't think so. I think what we're seeing is the early, so the thin edge of the wedge as far as adaption of a model that we think is going to revolutionize the whole enterprise computing arena. The big question right now is just when is this all going to happen? Are things going to take off in 2009? You know, Chris Capossela made a pretty famous statement awhile back about 50% of all the Exchange licenses or Exchange customers would be on Exchange online in a number of years. That was a pretty short time from I think five years or something like that. You know, the question is just what does all these look like? Is it going to be 50% by 2010? Is it going to be 30% or 20%, or when is that whole adaption going to happen? This particular conversation we talked about some of the challenges in that connection and I think that's natural for the early adaption and sort of the front-end of an adaption curve like this.

Richard Campbell: Sure.

David Sengupta: As this takes off, I think there's no question that hosted email is definitely going to take off and is going to dominate in X amount of years but the question is just when is that, is it 5, 10 years, is it 3 years, that's the big question right now.

Greg Hughes: Well, I know I've gone from hosting my own emails system to being completely on third party hosting systems and I love it.

David Sengupta: Yeah. I have been running Exchange online now for quite a while so my email is on Exchange online and it's been great.



Richard Campbell: Well, the proofs to put in, guys, is you're actually doing it. I'm still running my own gear so maybe I'm the stick in the mud here.

Greg Hughes: Yeah, you're the is what you are; and I sort of take the best of breed approach. So my email actually goes through Google system first and gets stored in its entirety there and spam filtered prior to being immediately forwarded on to my host Exchange system which is where I actually access all of my mail so I have two copies of the email in the Cloud everywhere including all the spam if I really care about that for 30 days, but I found performance-wise and in terms of the feature functionality that I get out of that hybrid approach, it works really, really well.

Richard Campbell: Interesting. David Sengupta, thanks so much for coming on the show.

David Sengupta: See you next time.

Richard Campbell: And we'll talk to you next week on RunAs Radio.