



RUNAS RADIO



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Richard
Campbell

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.



Greg
Hughes

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Keith Mayer Focuses on Microsoft Infrastructure Optimization!
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[Music]

Brandon Wehn: 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 Wehn, announcing show #68, with guest Keith Mayer, recorded live, July 16, 2008. RunAs Radio is produced each week by PWOP Productions, providing professional media and podcasting services online at pwop.com.

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

Greg Hughes: That's me, hey everyone. Hello Richard.

Richard Campbell: Hello sir. Enjoying your summer?

Greg Hughes: Yup, yup. It's a beautiful, beautiful day here. You know, I think when we're done with this one, it's going to be time for me to go find a boat and water.

Richard Campbell: Good plan. I'm just working nonstop these days. I'm off on more trips and never, never home. It's tough we end up doing lots of shows back to back just to fit them all in with my crazy schedule.

Greg Hughes: Yeah, that's it; do three or four in a day sometimes, but you know, that's okay.

Richard Campbell: Its fun actually. I find myself getting more energized as the day goes by diving into all these cool topics.

Greg Hughes: Yup and a lot of cool people that we're talking to about a lot of awfully interesting things.

Richard Campbell: With that, why don't we just get into our show?

Greg Hughes: Yeah, let's do it.

Richard Campbell: All right, Greg. Let's introduce our guest. For the past 15 years, Keith Mayer has been focused on design, implementation and training of Information Technology projects for large global organizations. Currently, Keith is the Chief Technology Officer with BrightPlanIT, a Microsoft training and consulting partner specializing in enterprise network technologies and initiatives. As CTO, Keith focuses on development and delivery of best practices in training and consulting services to a worldwide audience of Microsoft customers. Keith also works closely with technology vendors and

industry organizations as a subject matter expert in the areas of project management and datacenter consolidation. Welcome Keith.

Greg Hughes: Hey Keith.

Keith Mayer: Thanks Richard, thanks Greg. Pleasure to be here.

Richard Campbell: So, we bumped into each other at Speaker Idol, TechEd US.

Keith Mayer: That's right. I had a great time. You guys did a great job at organizing that, running around technically, but...

Richard Campbell: And you were my wild card finalist and came in second place, right?

Keith Mayer: That's right.

Greg Hughes: You did a great job, Keith.

Richard Campbell: Yeah, it was an awesome talk as I recall.

Keith Mayer: Yeah, datacenter consolidation versus virtualization.

Richard Campbell: In five minutes flat. That is not an easy thing to do. It's not a lot of time.

Greg Hughes: That's a real challenge.

Keith Mayer: It was definitely a challenge, you know. As a speaker, typically the first 5 or 10 minutes, you're just getting warmed up with the audience to be able to settle down on a topic. Having the entire talk in five minutes being a relatively technical topic, it really focused everyone on presentation skills right from the get go.

Richard Campbell: Absolutely.

Greg Hughes: And when your audience is for expert speakers, it's even a little tougher.

Richard Campbell: So, what are we talking about today?

Keith Mayer: Microsoft Infrastructure Optimization.

Richard Campbell: This is what BrightPlanIT, of course you call Bright Planet, but it's really BrightPlanIT which I think is a great name.

Keith Mayer: Thank you. Yeah, we've been working closely with Microsoft and other industry leaders over the last couple of years really on the



development and education of infrastructure optimization as a way to business align IT technology investments and really be able to produce a track going forward for the IT community within an organization, be able to prioritize projects that are going to have the greatest business impact and provide the greatest value in reducing cost management, I mean more agile, and I think really in terms of Microsoft Infrastructure Optimization, even though it has Microsoft's name in the assessment process, it's really a very generic industry wide look at IT initiatives that don't necessarily involve just Microsoft technologies. Certainly, Microsoft would like them to all result in the sale of additional Microsoft products but it's really a great way of looking at the overall IT environment we have in place and then being able to strategically prioritize and determine which directions make the most sense going forward. I think to a large extent really to appreciate the value of something like an optimization assessment and a business aligned project direction we really need to take some retrospective looks at what's been going on for IT pros within IT over the last five, six, seven, eight years. Since the turn of the century really, IT in many organizations had been very technology focused because of a number of technology driven initiatives that have sprung up that have needed to be addressed. At the turn of the century, it was the Y2K craziness and then after that was over, the focus on security because of the increased attention and increased level of vulnerability that we're being exposed.

Richard Campbell: Right.

Keith Mayer: And after that, it was 9/11 which was focused on disaster recovery and being able to recover quickly from server datacenter organization wide disaster. Even last year, a large amount of time was spent on daylight saving time readiness in 2006, focusing a lot of technology effort and really getting the technology investment that an organization has maintained over the last eight or nine years to a point where it's stable in performance and secure and can be leveraged by the user on a network for even running normal business application.

Richard Campbell: I'd even throw Sarbanes-Oxley into that stack too. I think IT cost and planning just can't be underestimated around SOX.

Greg Hughes: Right.

Keith Mayer: Sure and not just SOX but a variety of compliance-driven initiatives that cover other industries like the healthcare industry and to a much larger extent, any of us that are working in any type of organization now have to comply with the wonderful world of the amended federal rules of civil procedure or management of electronic data in their

environment in a ediscovery aware manner if our organization receives litigation requests in terms of meeting present court actions or sanctions or whatnot.

Richard Campbell: Ah, the wonderful litigious world of the United States.

Greg Hughes: We do spend more and more time during each show it seems talking about different compliance requirements and different rules and regulations whether they're private or whatever. PCI is another good one to mention that's brought up by private industry.

Richard Campbell: Sure.

Keith Mayer: Sure, definitely. As I go through visiting with the organizations that we work with and talking with people that may have attended various sessions or presentations or talks that I've delivered, I really get the sense that throughout 2007, a lot of the IT pros are kind of in that "whew" state of "Okay, we got all the technology pieces in a row. Now, we need to start looking forward," but over the last 18 months, there's been such a huge introduction of new products and technologies even in just the Microsoft world ranging from SharePoint and Office 2007 to Server 2008 to Vista, on and on and on that they're looking at it from a standpoint of "okay, we know that we're at that point, many of us are in organizations where we've made the investment in 2000 and 2004 or 2005 for hardware refreshes. We're looking at the upcoming next year and perhaps later this year, upcoming initiatives that we know from a technology standpoint we need to address," but they're huge initiatives and so what the Infrastructure Optimization process allows us to take that step back and allow us to evaluate our current environment because of the way that technology has been deployed in many organizations to meet these more piecemeal technology initiatives that have risen over the last eight years. The technology that's in an environment may be working well from a user standpoint, but it may not be the most easy to manage, it may not be the most scalable, it may not be the most cost effective way of running that environment and really would be the new economic climate that's impacting many of our organizations that that pressure is added into our technology drive of where we're going and what makes the most sense from not only a stabilization a n improving management and performance of our IT and network environment but also from the standpoint of what contribution of these investments are going to make to our organization's bottom line.

Richard Campbell: So, I'm looking at the microsoftio.com site and I guess this is a Microsoft initiative, Microsoft Optimization.



Keith Mayer: It is. It is a Microsoft initiative that other industry partners like BrightPlanIT as well as very large manufacturers like HP and IBM and Dell have adopted and worked together to try to help IT pros communicate, to first determine which direction they need to take their technology investment going forward and then help them understand and communicate that to the business powers within their organization. Oftentimes, IT pros within an organization are great at being able to understand the technical aspects of their IT investment. When it comes to communicating that value to the business, there is somewhat a communication gap and this assessment process can also help to address that particularly in the economic environment where the business value, the business impact is becoming more and more achieve focused around any investments that are being made into IT.

Richard Campbell: So, is this really about figuring out -- is this bottom line stuff? I'm trying to reduce the cost of my infrastructure?

Keith Mayer: Well, that's certainly a component of it but it also takes into account what types of productivity gains can users realize in specific areas. What types of management gains can I realize in terms of reducing not only the overall capital cost of expanding and maintaining the operational cost but also the IT resources that are involved, the time that's spent. Based on some very recent industry surveys, some of the top CIOs throughout North America, what they have determined is that as much 70% to 80% of an IT budget in terms of capital operational costs and resources are involved in just maintaining the environment that that organization has today.

Richard Campbell: Right.

Keith Mayer: We have only about 20% to 30% of time and money available to do anything about it, so with only that 20% to 30% delta today to really be able to change and improve upon the environment, it makes a lot of sense to take that step back and analyze where are we going to get the most value for this improvement as well as being able to analyze what potential dependencies are for the various components that make up an environment. As an example, I talked to lots of organizations that have looked at Windows Vista over the last 12 months in terms of "we know we have to refresh our hardware platform and we've looked at Vista and we're not really sure what to do because we've got application and device compatibility and whatnot and we're not sure about the performance impact this can have in our network and how the footprint's going to be talking to our existent servers and whatnot." That approach, while it's worked well over the past eight

years had kind of this piecemeal technology really needs to be realigned to say, "Okay, well, you see there's strategic advantages in our organization from a user and management standpoint, security standpoint to Vista but we know we have these dependencies, so rather than rushing into a workstation by workstation deployment, let's first architect our environment. It's a component of an overall comprehensive system instead of treating a network environment like a set of workstation and set of servers that happened to be connected via a common cable."

Richard Campbell: You know, I worry about Vista in a corporate environment like this if we're talking about productivity because there are enough things different in Vista just getting past the IT cost of can you get it installed, can you get it running with all the right gear and so forth. There's the time for people to be efficient with what is a substantially different operating system and that's an interesting challenge in weighing the cost of training and reinforcement of those changes to are you going to net greater productivity for that shift.

Keith Mayer: That's a great point, that education of the users and their environment and how to effectively leverage any new technology platform is key in being able to really reap the benefits of the overall business productivity side. What we're seeing in the enterprises that we're working with that have chosen to move forward with Vista as a component of their technology refresh strategy is that they're combining Vista and Office 2007 with some strategically focused training and a blended approach of that training that involves a little bit of upfront face-to-face delivery for a couple of hours that actually belong with some self-paid electronic e-learning just-in-time training to be able to kind of maximize that training. From what we're seeing, if an organization moves forward with just Vista and the application, the Office applications for predominantly haven't really changed, you're doing some training to get them accustomed to Vista but you're not really able to leverage that to any great magnitude because the training that you're leveraging for Vista can be pretty costly and from that standpoint, if you look to package other applications with that that are going to make sense and perform well and give equally great value to the users, you can take advantage of the benefit of increased economics to do the training once and cover multiple solutions that encourage users to effectively leverage those applications in their desktop platforms. From that standpoint, the other side of that equation of course is that doing too much, giving too much to users all at once can be overwhelming. So, from a training standpoint, we're seeing a lot of organization chop that into little pieces.



Richard Campbell: Yeah, you can only learn so fast.

Keith Mayer: Exactly. "Here's what's most important. We're going to provide that to you perhaps through some internal training we deliver as a couple of lunch and learn type sessions to get you accommodated and then as you interact with the platform and an application, we're going to provide additional very specific directed training that's available on more of a self-paced manner perhaps for the various applications that you're using on top of Vista."

Richard Campbell: Where does the whole Green movement fit in this equation?

Keith Mayer: So, the Green movement is certainly a movement that's aiming to help the environment as a whole but which an organization is certainly selfishly helping that organization reduce their not only environmental footprint but their cost of operating their equipment by reducing heat, power and overall space within the datacenter and from that standpoint, the Green movement has a direct relationship with any type of IO assessment because the cost of operating that environment once you've migrated to it versus the cost of operating your current environment can be a direct impact into the organization's bottom line in terms of cost saving.

Richard Campbell: Yeah, it's interesting how when you do Green right, it actually shifts that 70% overhead over a bit that not only am I saving money and doing something "good," I'm also opening up myself to more time to optimize.

Keith Mayer: In terms of Green IT initiatives, I've seen a lot of focus within many organizations on the datacenter making the datacenter Green.

Richard Campbell: Right.

Keith Mayer: That's very important. There's another aspect of the network that's sitting at the other end of all those network cables that can be an even greater impact to the operational cost of an organization's bottom line but is much harder to track and that's the workstations that are sitting at the other end. In a typical environment, then they have 60, 70, 80 servers and their storage and switches in their datacenter, that same environment probably has thousands and thousands of old workstations on their network are looking to be replaced. One of the key advantages from a workstation standpoint, particularly with the enterprise class or business class workstation platforms that are available today is that by leveraging the power saving APIs and out of band hardware management agents that help us to essentially control power consumption by putting PCs

that are idle to sleep after hours for instance, waking them up in the morning.

Richard Campbell: If you'd actually just use that Wake on LAN feature we've had for years, we could actually shut down those machines all but down and only wake them up to do their updates.

Keith Mayer: Exactly and the traditional Wake on LAN type feature sets, you're right, they have been around for years and years, but a lot of organizations have been somewhat adverse to deploying it because it's harder to deploy centrally.

Richard Campbell: Yeah.

Keith Mayer: Time involved in enabling it on each PC and in the traditional sense, Wake on LAN isn't really security focused. Once it's enabled in the old days, anybody could send a specific magic pack across the wire and wake your workstations up and some of the security conscious organizations have been looking at it from the standpoint of "if I really want anybody to get into my network to be able to wake up all my machines and then starting to probe those machines for security vulnerability, I'll get rid of the network."

Richard Campbell: But the alternative is you left them on and they're probable anyway.

Keith Mayer: That's very true, that's very true. To address that, what some of the hardware vendors have been offering is the hardware management out of band agent that's built into the system platform, that really rivals some basic capabilities of what's available in many of the server platforms today in terms of remote hardware management so that security is baked into desktop PCs and they use a PKI, certificate exchange and Kerberos authentication so then you have these hardware management features waking the PC up, forcing it to boot for alternate media, shutting it down, putting it to sleep mode, are all now authenticated using network authentication and encrypted using certificate-based security.

Richard Campbell: So, much more sophisticated kinds -- it's not just a prompt to wake up.

Keith Mayer: Exactly, and then to address the centralized deployment of this, they have features built in where you can put in centralized provisioning services, in many cases on existing servers that are already in your environment as those PCs are brought out of the box, plugged into your network environment, they boot up and they can look for -- instead of central instructions that IT has for them as to how those hardware managing agents should be



configured and integrated with the network environment.

Richard Campbell: So, moving along in this topic, I think one of the areas that it's easy to look at are datacenters, our core infrastructure and even business productivity which largely software we're buying from Microsoft and other vendors, but I don't know of any developers that really think in terms of optimization or their optimization is purely make the app faster. There is no other kind of optimization.

Keith Mayer: Sure, and oftentimes that's driven by application development timelines and goals of the businesses to deliver functionality to the users so that they can begin using the application and it's very much in the application development world, the same type of issue we find in the IT pro world with technology core infrastructure where we have certain deadlines that this stuff has to be in place by so we're going to target that instead of stepping back and taking that more big picture look at things. So, from the application development standpoint, that big picture is also important because if you have application developers in your environment that are writing custom apps, certainly, by helping them to first standardize a common set of tools and a common development platform that's robust and lends itself to more rapid application development, you have the ability to pool your resources instead of treating your application developers as, "Well, he is the Cold Fusion guy. He is the .NET guy. This is the SharePoint guy over here." It allows you to have a common layer of cohesion around those developers so that you can really pull the code that each of them are developing into a common repository and be able to potential leverage that across the application. The Application Optimization, Application Platform Optimization is really a different way of looking at some of the evolving application development mindsets that have been getting addressed at a very ultra large global enterprise organizations for years in terms of developing a more service-oriented architecture and at the Microsoft development world, there are some great ways to be able to leverage that with in many cases products and development technologies that an organization may already own in terms of SQL Server 2005 or 2008 moving forward, in terms of Visual Studio, in terms of SharePoint, to be able to develop applications wisely in a manner where the common code is very reusable, is core to the business and that common functionality can then be leveraged across countless frontend applications whether they are developed via ASP.NET, whether they are Windows console applications or traditional Windows client applications and whatnot.

Richard Campbell: I wonder when we're going to get to a point where we can do stuff like watts per transaction. Of course, I've got a real green bent and

it has nothing to do with being in Vancouver per se where Green Peace started, but rather I'm just getting a lot of pressure from the outside world on making datacenters more efficient and so forth and we're starting to raise power density per rack. I mean these are interesting problems. They are a kind of optimization. I just don't think they are the only kind.

Keith Mayer: Yeah, that's right, very interesting. The level of granularity that the industry is moving towards, we're looking at impact to the bottom line is decreasing all of the time and that's why taking this assessment approach initially before you start making additional investments in other technology make some sense to make sure that if you're going to make that investment, if you know you have to make these investments anyway, let's make them wisely and let's choose solutions that can really further our environment instead of teching on all these solutions to the perimeter of our existing environment and increasing the overall management, the number of IT resources we need to have internally to maintain it and whatnot.

Greg Hughes: Now, I notice there's a customer assessment tool available on the microsoftio.com website.

Keith Mayer: Yeah, and the other URL that customers can certainly visit is just the generic, off the generic microsoft.com site. There's a Flash optimized link that takes them through, gives them links to that same assessment process as well as additional background information on the core IO infrastructure assessment, the business productivity, infrastructure assessment process, and the application development platform assessment process.

Greg Hughes: Yeah, it even looks like there's even an offline version of the assessments for each of those core areas as well that can be accessed and leveraged.

Keith Mayer: Yeah and the benefit from an IT pro standpoint or one of the benefits is that the assessment process gives you that high level snapshot of where your organization would be best benefiting and investment of technology, maybe several different areas, but the report that it produces is a very business savvy view of technology within your organization as well as providing comparisons of the industry that your organization is in, the size of your organization, to other similar organizations in the same industry and of the same size so that you have a real sense for competitively, if the way that IT is leveraged in your organization, putting your business ahead of the curve, on target, or behind the curve as well which is very interesting for an IT pro standpoint. A lot of IT professionals don't think about a company's investment in technology as being strategic as a



competitive advantage to the organization, but we've tried it; they certainly can be.

Richard Campbell: In terms of rate of work, number of hours it takes to get certain things done, number of people it takes to operate a certain infrastructure, it can be very dramatic.

Keith Mayer: It certainly can. We've seen just on real simple kind of VB stuff initiatives. After going through an optimization assessment, one of our clients looked at putting infrastructure and new desktops in place in a very intelligent manner by taking the approach of following the guidelines from the optimization assessment and building project plans around that, get some planning and testing upfront, they were able to deploy those workstations and those new servers and reduce power consumption and the operational cost on them by 75%.

Richard Campbell: Wow.

Greg Hughes: Wow, that's a lot.

Keith Mayer: The power cost per workstation they had measured in working with their utility company as being \$80 a year in power consumption per workstation and eight hours a year doesn't sound like a whole lot but when you multiply that times 10,000 workstations this organization had, by using the advanced power management, hardware out of band management, they were able to reduce just that power footprint down to \$10 a year per workstation and it was really, just that alone, was a huge contributor back to the ROI that their organization saw on deploying those new precision platforms. That's something that's going to just continue on an annual basis. So, the savings impact, the cost impact, the advantage to an organization can be surprisingly dramatic even in just small components of following down this path and then the overall impact is if you developed a path that's a cohesive path and you're able to achieve effective business results at every step, they just build on each other as you're moving down their path and by the time you get to the end of the path on your three-year perhaps technology plan refresh cycle, by the time you get to the end of the path, you've substantially addressed and reduced issues across your environment from datacenters as well.

Richard Campbell: It could be very dramatic and it's interesting how those things will progress over time that you can look at it a couple of different ways. One thing to put the money in the pocket is another thing is to use that space now, that additional budget, to extend your competitive advantage further.

Keith Mayer: Sure, definitely. The other aspect that we've seen IT pros be able to use an assessment process like this to their advantage was in the organization where demonstrating the value of additional training that focus on the technology that an organization needs to deploy to become more competitive, more cost effective, and whatnot. In many organizations, training is kind of a hard sell and IT pros, that's one of the biggest challenges that I've heard from IT pros that are out in the field, that's one of the big issues that they face is, "How do I demonstrate the value of training myself and my staff to the people in my organization that are making those types of decisions?" By pairing it up with a comprehensive plan that shows the business impact of combining training, combining effective training that is, combining effective training and overall project plan, it becomes very easy to justify.

Richard Campbell: So, on one hand, I see I mean there's actually the saving element of doing this work, but on the other hand I see an opportunity for IT pros really to get good documentations for talking ROI concretely about their infrastructure.

Keith Mayer: As well as, as they continue to grow within their organization, those IT pros can use this type of process as a set of steps to establish a much closer working relationship with the people that are on the business side of their organization.

Richard Campbell: Sure.

Keith Mayer: Because if they can begin talking about IT in terms of how the business owners, the business decision makers, see making an impact in the environment, they're going to get huge credence and much more leeway in being able to recommend and optimize in the environment moving forward without as much pressure from the top down.

Greg Hughes: Yeah, IT being a key component, a strategic component of a company's business is really the modern way of doing things. Maybe this is a great opportunity for some IT shops to grow up if you will and some tools and with this MIO packages and there's a huge number of resources available on this website for organizations just to get started. It seems like a real opportunity to mature as an IT department.

Keith Mayer: The other advantage that I see for the IT pro on a more professional development individual basis is that none of the IT pros I talked to want to spend 70% of their time maintaining their existing environment.

Greg Hughes: Right.

Richard Campbell: Right.



Keith Mayer: That's not glamorous and fun and exciting and doesn't develop you as a forward focused IT professional. So, the more technology that you can implement that helps you shrink that maintenance investment, not only helps the business but it helps IT pros themselves so they have more time to focus on really the fun and exciting stuff, more time to be able to get trained, to be able to implement new stuff.

Greg Hughes: You're building up your wild character, right, so that you can sell it on eBay for money. Nobody does that though.

Richard Campbell: No, nobody does that.

Keith Mayer: The impact is huge at a personal level, at a professional level, at a business level. If it's properly architected and done right, it's just a great path to help out in so many ways.

Richard Campbell: All right gentlemen. We're coming up to the end of our half-hour. Final thoughts?

Keith Mayer: Well, Microsoft Optimization again is a structured process for assessing your ability to leverage IT in a business directed manner. It's a great approach. I encourage you to look into it in more detail. If anyone has any questions or would like some advice and guidance on the process, they can feel free to contact me or visit us on the brightplanit.com site and I encourage you to actually begin coming out of this session to visit the microsoft.com/optimize page and begin exploring so you can align your business and IT strategies together.

Greg Hughes: Good stuff.

Richard Campbell: Keith Mayer, thanks very much for coming on the show.

Keith Mayer: Thank you Richard.

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