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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

*Text Transcript of Show #153*  
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**Dave Sobel on Virtualization for Small Businesses!**  
**March 24, 2010**



[Music]

**Brandon Wenn:** From [runasradio.com](http://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 #153, with guest Dave Sobel, recorded Thursday, March 4, 2010. RunAs Radio is produced each week by PWOP Productions, providing professional media and podcasting services online at [pwop.com](http://pwop.com). You can follow the boys on Twitter at [twitter.com/runasradio...](https://twitter.com/runasradio)

**Richard Campbell:** Thank you, Brandon. This is Richard Campbell with an unusual version of RunAs Radio today because I am without Greg Hughes but I hope everything is all right for Greg. He's having a little bit of a crisis today and with any luck will be back in the saddle as per normal next week. So let's get right into introducing the guest this week and it's Dave Sobel. He is the founder and CEO of Evolve Technologies, a consulting firm that provides information technology and computer networking services to the small business, faith-based and nonprofit communities in Washington D.C., Maryland and Virginia. Evolve Technologies provides a wide array of services including server installation, virus protection, network security, backup services, and complete information technology outsourcing. The first Microsoft Small Business Specialist located in the Washington, D.C. area, Evolve Technologies is a Microsoft Certified Partner. Part of founding Evolve Technologies, Sobel worked as a web architect for a consulting company doing security, network, and infrastructure design for Fortune 1000 companies. Sobel holds a bachelor's degree in Computer Science from the College of William and Mary. Welcome, Dave.

**Dave Sobel:** Well, thanks for having me. So this whole Small Business thing fascinates me. It sounds like a very interesting lifestyle essentially of working. What do your customers typically look like?

**Dave Sobel:** I love Small Business. I've sort of loving it in the whole of my career. I went from big companies to smaller, and smaller, and smaller companies for my own employment and by the time I got to a really small IT unit, it's fun. I'm going to do my own. So then I started at my own organization and then built up my staff. Our customer base, the way we describe is it's less than 150 users. It's the profile we're looking for. We're actually a lot more particular about the kinds of people we're looking for, but from a general perspective we consider small and medium size business that we look for less than 150 employees. We like to work locally so we're looking for customers with office, a physical office that's about an hour's drive from our office. If you're familiar with the Washington area, traffic is so variable. We do it based on travel time rather than physical system.

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**Richard Campbell:** Right. And distance, yeah. Because that hour could only be two blocks. I've been there even when it was just like that.

**Dave Sobel:** Sometimes yes. That far side of the city is not really in our target. We do work over there occasionally but with terms of who we're looking for it's a little closer to home. We naturally get around and such. So the smaller companies, we work with them a lot for profits. We work with some help organizations and we work with kind of that general business style, you know, people that are doing business consulting.

**Richard Campbell:** Sort of these starter firms simply not have IT staff at all?

**Dave Sobel:** Well, some do. I find they tend to forward this in two categories. The first are the ones that don't have a staff at all.

**Richard Campbell:** Right.

**Dave Sobel:** And generally I say they should avoid having staff as long as possible in IT because they don't do IT.

**Richard Campbell:** Yes, it's not their business.

**Dave Sobel:** Yeah, it's not their business and I believe if you've got a business you focus on what they're good at and find partners for everything else. It fits in that philosophy. If you're a law firm, if you're a great lawyer, how do you build your IT guys any good?

**Richard Campbell:** Right, right.

**Dave Sobel:** And how do you keep them trained or how do you keep them engaged and good IT people, like people that like the challenge, who want to continue to push and grow and that's difficult to do in an environment where your job then becomes unstable.

**Richard Campbell:** Yeah.

**Dave Sobel:** Your career motivation becomes different from your job motivation.

**Richard Campbell:** So when I'm thinking about a company with only 150 or less people, are we talking anything more than us server?

**Dave Sobel:** You know, that really comes to the 10 on what they're doing as a good business. You know, we have small customers who only have to say 20 or 30 people that have six or seven servers because they're doing something highly technical, or they have analysis, or they're an healthcare firm and so have this very particular needs for data analysis. It really varies based on what they do business-wise



and particularly now with some of the stuff we're doing in virtualization where we talk about only one server, or maybe we only need one physical chassis but it actually has four workloads on top of it.

**Richard Campbell:** Right.

**Dave Sobel:** So it's such a variable kind of discussion that I really don't like to jump right in to talking about how many servers you have. I like to talk about what applications are you running. What software do you use? What are you trying to accomplish with your infrastructure?

**Richard Campbell:** Well, and certainly there are certain workloads that don't work and play well with others. When I say that I'm thinking Exchange, but that's just me.

**Dave Sobel:** Yeah, and we've got multiple ways of doing Exchange now. In some cases, you put Exchange on a customer's premise because it integrates with other pieces of software they use, and in other cases you'll say now we put your Exchange system out in the internet, "in the Cloud" because they don't want to have that physical infrastructure on policies. So we can do hybrid models, or we can put all of it online. Again, how many servers do you have when you're subscribing to Exchange and maybe getting IT resources on a utility basis? I sort of say who cares. You know, I just want you to be able to do what you need to do.

**Richard Campbell:** Right. If it's just mail, why would you want to own a server?

**Dave Sobel:** The way it is, it has because in some case you might want to. I mean, one of our customers use this similar kind of application where our management software actually integrates with Exchange so that you need to live next to one another. And so in that case you need to own the Exchange Server.

**Richard Campbell:** Right.

**Dave Sobel:** But if you're a smaller PR Practice, which is one of our customers, they're moving their Exchange offsite because why have it on primer?

**Richard Campbell:** Yeah. Why have that expense and concern. I mean, typically I think folks think about Hyper-V Virtualization as a fairly large scale implementation. It does make sense this small?

**Dave Sobel:** It actually does and particularly if use your Hyper-V, the Microsoft Hyper-V platform. I mean, I'm not a Microsoft MVP doing that technology.

**Richard Campbell:** Right.

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**Dave Sobel:** And all of our works is in the Small Business, you know. A lot of times a great example that I use as a beta, but there are two of them. First is you've got a server that's running very, very well and you paid a good solution provider other than like my company to run it for a number of years and things are running really well but the hardware is getting very old.

**Richard Campbell:** Right.

**Dave Sobel:** We've got a technique for virtualizing that environment to move it to new hardware so that you can move to new hardware and now be completely portable and flexible with your environment and move to new hardware. But keep the existing environment because you're really happy with it. It does exactly what you need and you're not ready to make that migration expense at this time. So now you can separate the two so you can make a hardware invested without having to make the additional software in essence, whereas before we are always requiring you to do the two together.

**Richard Campbell:** Right.

**Dave Sobel:** Anytime you would need new hardware, we'd require a migration. Anytime you need new software, we might need new hardware. Now we can separate.

**Richard Campbell:** Well, then the reality of course was that when you wanted to replace that hardware, the effort to do that was so great you might as well replace the software.

**Dave Sobel:** Right and now that's not the case and that's one of the key scenarios that we're using virtualization for. It's to separate those two so you can make more intelligent decisions about your investment. The other scenario we find that's very, very compelling is around disaster recovery plan. We can use virtualization as part of the toolkit now to enable you to have a complete DR solution even for a very small company. We now could replicate a server offsite into our posted environment to say you've got it on premise environment. We can have a complete copy of your server environment hosted on the internet so that in the event of a disaster, from small to large we can bring you up on the online and bring you back up entirely. You know, my example of this, I really want to always sort of think things over. You know, the earthquake in Chile and such, that's not going to happen here.

**Richard Campbell:** Right.

**Dave Sobel:** A much more common DR scenario is one that I like to tell a story of what if there's a fire in the lobby of your building and you can't get into your physical facility?



**Richard Campbell:** Right, yeah.

**Dave Sobel:** I think it's kind of common. That happens.

**Richard Campbell:** Yeah, sure it does.

**Dave Sobel:** You're blocked out of your building, that's the kind of disaster that we're talking about. We have those crazy snows here in Washington. I couldn't get people around. So we put our DR planning to place and we'll show the operational in terms of the way we did it. Now that portion of the DR plan involved where we put people in their connectivity as opposed to lighting up servers in the Cloud, but we have all of the options ready.

**Richard Campbell:** So what sort of backup solution are you using for the virtual machines to be able to make them portable?

**Dave Sobel:** We do a couple of different things. So one of the things is by definition virtual machines are just software files.

**Richard Campbell:** Right.

**Dave Sobel:** So we use our replication technology that allows us to move them off to our hosted datacenter and use the datacenter interface to it as well so you can actually show the customer via the web, "Look, I just bring up your server," and give them access to it themselves.

**Richard Campbell:** Because those files aren't small either. You're talking 16, 24 gigs in some cases like they're big files. The challenge is actually say getting them to another datacenter. It's not trivial. I don't want to stream that over the internet.

**Dave Sobel:** Well, so the way – I'll say the layer of technologies these days is we actually move, we physically move to see the image so the full initial image, and then we actually take daily incremental changes and roll those into the image.

**Richard Campbell:** Right because in Hyper-V we have the general drive so you just basically maintain a general drive, roll it up each day but make a copy of it first and roll it into your backup.

**Dave Sobel:** Exactly and so we merge those together to create a new gold standard in the Cloud on a daily basis.

**Richard Campbell:** Okay. And so yeah, now you're setting the delta up and it's the normal configuration. I have my server and my Office running the Hyper-V configuration, and then I have a DR site that is an ISP of some kind?

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**Dave Sobel:** Yup. So what we're offering, we offer it as a managed server so that we actually take care of all the pieces for you.

**Richard Campbell:** Oh, okay.

**Dave Sobel:** It reduces the complexity because then we don't have to assemble all the pieces and we can monitor and manage the whole thing and have it ready anytime you need it.

**Richard Campbell:** And I can also see, I mean still Small Business but two branch offices, each having a server and replicating each other as well.

**Dave Sobel:** Absolutely. You can use circumstances like that. You can use virtualization technologies for desktops. If you want to have ready to go desktops remote users, virtualization is a great way of doing that and it can ramp up very quickly. There are a lot of different scenarios that we can use.

**Richard Campbell:** Isn't the licensing prohibitive in the workstation model? How does that work out legally?

**Dave Sobel:** So Microsoft has actually been working specifically on solving these problems and has licensing arrangements that's intended for virtualization. So you can actually use your open licenses, it can be use in certain circumstances for virtualization. There are hosted versions. We can offer the licensing as a service and there's a bunch of different ways now to handle that problem.

**Richard Campbell:** Cool and in terms of -- by all means, just tell me if you're not knowledgeable exactly on this. How many virtual machines can I run per server on what license? I'm just thinking about the cost in licensing for a Small Business here.

**Dave Sobel:** Sure. Basically we're talking about Windows specifically, it varies depending on the products' queue, to use the technical term for it. But for example, the products we talk a lot about in a Small Business is Microsoft Small Business Server.

**Richard Campbell:** All right.

**Dave Sobel:** So in Small Business Server 2008 edition, when you buy the premium edition it actually comes with two pieces of software from an OS perspective. It comes with the SBS fan vault, but it usually comes with a full version of Windows Server 2008 standard.

**Richard Campbell:** Okay.

**Dave Sobel:** Now standard, if you were to go to the store and buy it, it actually includes what they call 1+1 licensing, and 1+1 licensing means that we can use one on the physical host and then we get one



virtual machine by bundling that in the SBS bundle. That means we get the virtualization layer, the SBS system which should be virtualized and then an additional server that we can then run our line of business application all on one single server purchase.

**Richard Campbell:** Don't you want to keep the host machine in the scenario basically bare? All it does is run the virtual machine manager?

**Dave Sobel:** You do but you better play it again. You're not losing anything in this licensing scenario because the basic purchase gets you SBS plus your full version of Windows Server standard which you can use then as the VM so you're actually gaining that virtualization layer as part of a bundle.

**Richard Campbell:** Yeah. I'm just saying so do I have two virtual machines when I'm done here, when it's just sort of a bare Windows installation and one that's SBS?

**Dave Sobel:** Exactly.

**Richard Campbell:** In a way I have three licenses than two because there's also the host machine license.

**Dave Sobel:** Right. Now the host is restricted to the Hyper-V role because that's all you do with it.

**Richard Campbell:** To be licensing compliant, you don't put anything on the host machines.

**Dave Sobel:** Well, not only with licensing compliant, but it's the recommended architecture.

**Richard Campbell:** Okay.

**Dave Sobel:** You don't want anything down there and to a certain degree why would you? You've got that full virtual machine and you can put anything you want into there.

**Richard Campbell:** Right. This is fascinating. Just the fact that Microsoft is really grappling with these too, and to license them is the way that makes sense. Now if I remember correctly, and I'm really digging back here, doesn't SBS also have the ability to break into more than one server?

**Dave Sobel:** So SBS itself does not.

**Richard Campbell:** Ah, okay.

**Dave Sobel:** The SBS supports the addition of additional servers. So if you need more servers, the licensing model on SBS is actually really generous. When you buy, people always complain about buying those Client Access Licenses.

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**Richard Campbell:** Yes.

**Dave Sobel:** Well, with the SBS CALs actually applies to all servers that you buy in that environment. So once you buy like if you need a -- now you buy a premium and you've got your SBS plus a single edition, if you need another server you just go out and buy the server license and your CAL for SBS apply to that new server.

**Richard Campbell:** And then there are also now the essential business servers as well next to your app.

**Dave Sobel:** There is and what does is SBS is intended for organizations kind of between 5 and it goes up to 75.

**Richard Campbell:** Right.

**Dave Sobel:** EBS is intended for users that go from about 50 all the way up to 250 because it's a three-server configuration and it scales a little differently. So between the two you've got licensing options that go all the way, all the way you need, and EBS is a very similar kind of premium edition that comes with an additional server license that you can then use in the same 1+ manner.

**Richard Campbell:** Yeah and I can see your business then straddles the line between both SBS and EBS.

**Dave Sobel:** Yup, we do. So for example I'm a certified in both because we want to make sure that we're using the right product for the right customer.

**Richard Campbell:** That makes sense. And really, I feel like just recapping here. There are two areas that virtualization really helps Small Business. The first is making us hardware update resistant that we can move from hardware to hardware without having to rebuild our apps that we probably don't need rebuilding, and the other one is this Disaster Recovery scenario. Are there other things that we can do?

**Dave Sobel:** There are actually a lot of different things we can do. We use it to simplify the migration process. In fact, we can do system migrations with either zero or near zero downtime depending on the way the customer wants to implement and we use virtualization for that so that we can actually take in your -- my team is actually right now working on a project exactly like this where we take a snapshot of an existing server, we virtualize it, we then perform that migration and we can then bring that new server in as a virtual machine and migrate the delta changes since our initial snapshot and so we can really migrate a customer with either the zero or near zero downtime.



**Richard Campbell:** Forgive me because I tend towards larger systems but that sounds like system center virtual machine manager there, that that's what that tool does.

**Dave Sobel:** So that is and that's one of the -- well, you have several different ways of doing it and SCVMM is available in a workgroup edition in the SMB. So it supports a smaller install at a more SMB price point that is affordable for them.

**Richard Campbell:** Well, and it's interesting to see that there is all of these tools in one form or another for the SMB market.

**Dave Sobel:** Yeah.

**Richard Campbell:** The thing for me is I know from doing licensing at the enterprise level that you can spend tens of thousands of dollars in licensing in a heartbeat.

**Dave Sobel:** Yeah, at the enterprise level.

**Richard Campbell:** Absolutely.

**Dave Sobel:** And Microsoft, to their credit, gives a lot of thoughts to how do we make these products available in the SMB and generally you need a product and in these products you find there is an addition that works at the SMB level. That's why we deal with it as another specialty. Your know, being a Small Business specialist means that we have to learn all those of those pieces and still understand all of the enterprise techniques and just make sure they sit in our environment.

**Richard Campbell:** What about the free tools that Microsoft puts out which I generally also think of as enterprise-type tools like the deployment toolkit? Do you use that in a Small Business environment?

**Dave Sobel:** We do, we do. We use both the deployment kits on the desktop site. We use those to do image space roll out. One of the nice things about working with a group like ours when you don't have an IT department internally is that we view our customer-based kind of like one enterprise with very distinct departments. So whereas for us, we're supporting a thousand or 1500 endpoints across our customer base so we look at this as we're serving a customer about 1500 endpoints of size.

**Richard Campbell:** Right.

**Dave Sobel:** So we've got to take those same deployment methodologies and make our department as efficient as possible and then you just get the benefits of it down to a customer, you know, a department that may only have, you know one of our customers that may only have 10 users but they're

getting the aggregated capabilities of this large IT department.

**Richard Campbell:** Right and a 10-person company or a 10-user company is just not just going to learn how to use deployment toolkit for the workstations. They'll handbuild them.

**Dave Sobel:** Right. But when they're IT guy is supporting that many desktops, he wants to get those desktops rolled out as quickly as possible even if it's only 10 in that one office who wants to move as quickly as possible and that's the model that we work under to deliver our services.

**Richard Campbell:** Where I love deployment toolkit is when we start replacing hardware and it takes no time at all to just push out new images and hand the sales persons their machine and they already know where everything is.

**Dave Sobel:** Yup, exactly. And we're doing the exact same style and we're doing a Windows 7.0 deployment for a 25-user network. We're using that style of deployment and we keep those images of those systems on their site on parameter so we're ready to go and we can even do most of the work from all ways. So if they need a new machine deployed, we can just have it installed, press go, get all the deployment images set out and issue them in any machine.

**Richard Campbell:** Cool. I want to jump back a little bit to, we briefly touched on the virtualization with workstations. Maybe you can help paint the scenario a little bit more about why would want your workstation virtualized.

**Dave Sobel:** There's a number of -- I was just talking to some Microsoft users last week about some of the ways these all works. You know, there are certain scenarios that make also a lot of sense for a virtualized desktop and what we talk about a lot is this idea of the task worker. If you're an employee in an organization and you have one particular set of things that you do over and over and over again and maybe you work on a shift with a team, this is a great way where we need to virtualize your desktop because we can present to you as the end-user a desktop that looks exactly the way you're used to working with it. But on the backend, it's actually running out on a server somewhere and we've manage that that entire system is now a file and if anything ever happens to it we have created backups of it, we can restore it very quickly, and we go read images very, very quickly and you can share those larger server resources to make sure that that desktop is only the available and its very high performance.

**Richard Campbell:** So are you basically RDP-ing into a workstation session on a server?



**Dave Sobel:** In a way, yes, but the experience is much more natural than that. If we're doing it, the way we're implementing it is you sit down at your work system and you log in and you don't have concept of the hidden RDP to it. You know, that it's actually -- it is a full workstation and additionally different from a terminal server session. It's a fully dedicated operating system environment for you. You are not sharing that terminal server environment with other users that may run into them. You've got your own operating.

**Richard Campbell:** Now is this a Windows 7.0 trick, or you're actually copying the VM on to the local machine and running it from there?

**Dave Sobel:** So again, it kind of depends on the way we implement it.

**Richard Campbell:** Right.

**Dave Sobel:** Oftentimes we're still running those VMs in the datacenter because we want to take advantage of the high processor capability of a larger more available memory.

**Richard Campbell:** Right.

**Dave Sobel:** So oftentimes we're running it on the server, but we have techniques where we could run it where you can have that image available on your local machine, for example on a laptop or mobile-style environment. We want to make sure that your environment is available to you even disconnected and we can do that kind of piece and it works. It synchronizes it back up and you know something is available anywhere you need it.

**Richard Campbell:** So what are the tools you're using to sort of create this flying virtualized workstation?

**Dave Sobel:** Again, there are a couple of different ways we can do it. The Microsoft stack itself supports VDI, so Virtual Desktop Infrastructure. You know, you can actually do it with Server 2008 R2 in the brokerage, in Windows 7.0, and in all of the components that go with it you can do a full VDI implementation. You can do it with other partners. We actually do use partners sometimes for that. We've hosted models where if you don't, you don't even want to think about that. We can deliver it to you entirely over the web and so you can log into your desktop just from the website and then we've hidden all of the infrastructure from you.

**Richard Campbell:** So really there's VDI here and Microsoft has a whole set of pages around this. It's really making that transparent whether I'm remotely connecting ala terminal services-type model RDP or bringing it down to the local machine to run it. You don't need to know, it should just work.

**Dave Sobel:** That's the intention. Frankly, that's the philosophy that we like to adhere to if you get on the SMB.

**Richard Campbell:** Right.

**Dave Sobel:** These are customers that I don't want them to think about how it works. They shouldn't need to employ IPI. They used to just measure it. It doesn't work, and what's the return on my investment by using it. If we're talking about those terms, it's a business scenario, not a technical one.

**Richard Campbell:** In the course of this conversation, we sort of presented two competing workstation stories. There's the Microsoft deployment toolkit approach where I maintain an image that I deploy to a machine, and then there's this virtual desktop approach where the image exists on a server and can be run remotely or moved to the machine dynamically.

**Dave Sobel:** You're exactly right and the way I view that is there are just two different tools in my toolbox because I want to talk to a business about what are they trying to accomplish from a business perspective and then pick the right tool out of the My Toolbox to help them work the best ways for them. I guess you'll get a little frustrated by an IT approach where I have a hammer and everything to the nail.

**Richard Campbell:** Right.

**Dave Sobel:** And virtualization isn't right for everybody. I mean, we found there are studies that say about 70% of our workloads will be virtualized and that will continue to grow. But not everything is a solution here. You don't use that one technology for every single time. We've got to know the difference. They're not for everyone so match customers to the right option for them.

**Richard Campbell:** I'm just trying to think through what the differences are in those two different deployment models and the only thing that really hits me is that as long as you're running, when you're running the VDI approach you have a monthly bill from an ISP for hosting that. Whereas, if you're running the MDT approach, you own that hardware and there's no monthly bill. You pay it all upfront.

**Dave Sobel:** Sure and that's the big difference on the business side. There are also differences on a technical side. I mean, some applications don't run well in VDI yet.

**Richard Campbell:** Right.

**Dave Sobel:** You know, high graphic intensity starts to stuff in. And big computational pieces around CAD and the designed work and stuff, that



just doesn't wind itself naturally to that and so I get their environments where if it's a highly mobile environment where they aren't connecting the high capacity bandwidth on a regular basis, that also you want to put as much as possible on the desktop there. It's making good business decisions about what is right for them.

**Richard Campbell:** So the correct answer is always it depends.

**Dave Sobel:** It really does and you sort of say it with a smile and I hate always sort of having to say to people it depends, but it does.

**Richard Campbell:** Yeah.

**Dave Sobel:** The reasons you want to work with a good IT or consultancy organization, is to have that design skill and the ability to make those decisions rather than the pure ability to implement it because it's that insight into making the right decision that differentiate a good solution provider from in and out.

**Richard Campbell:** Right and really I mean we just talked about two scenarios. The third scenario is the Cloud approach...

**Dave Sobel:** Right.

**Richard Campbell:** Where you're really paying for this by utility computing and I got to think that while again it depends, you may end up with a mix of all three.

**Dave Sobel:** Yeah. I mean, I actually think that some of the main ways the pieces they'll sort of get all that are hybrid models where we're combining the best technology from each to create a solution for that. I don't think necessarily everyone is going to embrace purely Cloud or purely on premise anymore. I think you're going to see this Hybrid. I mean, for example, if you already think about it, many people have been using "Cloud services" for a while. If you subscribe to your anti-spam solution for the past two or three years which is the way we offered to pull out, you're already using Cloud services.

**Richard Campbell:** Yeah. That product has slipped under the Cloud banner now.

**Dave Sobel:** Yeah, but it's always been there.

**Richard Campbell:** Yeah.

**Dave Sobel:** I mean it's always been a Cloud delivery. We're just now sort of wising up and calling it that.

**Richard Campbell:** That's right.

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**Dave Sobel:** It's a great example that if you tell customers which you've always been doing there, it's just a matter of picking services which may sense to deliver that way, and then which ones are required on premise and then what are we going to do with the other piece.

**Richard Campbell:** Yeah. There's not going to be one right way for any given business or within a business. It's going to end up being a mix.

**Dave Sobel:** Exactly.

**Richard Campbell:** And I really like DR as sort of Cloud service. I hate the idea of owning servers that are sitting around for something to grow wrong. I just rather spin up something when I needed it.

**Dave Sobel:** And actually that's why in the SMB, that's why in most companies they haven't had any DR plan.

**Richard Campbell:** Right.

**Dave Sobel:** Right. I mean when you're a small company you're not in the business of keeping expensive spare hardware around just in case.

**Richard Campbell:** Yeah.

**Dave Sobel:** That one or two servers or maybe three server-investment, that was your budget and they have the ability to maintain. In fact, that's the PC budgeted for. You cannot be spending money to just put on the shelf and not use. That's not the way they want to implement and so as a DR solution it's proven to be very, very effective because now we actually have DR plans for base that really it's just been out of provision for so long.

**Richard Campbell:** Well, and in a utility model, basically the cost of that thing is minimal while I'm not using it. I light it up each day to push the journals up for the virtual machines and the rest of the time it's basically dormant so the cost is not going to be extremely low. But in a crisis when we need to light it up, then there it is, it's ready to go and now we encourage charges by utilization but we don't pay for when we're not using it.

**Dave Sobel:** Exactly and that's the right way to deliver it. It's effective for the customer, and it works, the model works so well at the SMB.

**Richard Campbell:** David, I think we're just out of time. Are there some places that people should be looking to understand this technology better?

**Dave Sobel:** Sure. I mean, the way we help with the information is from a customer's perspective. We put the information for our customers at our website at [www.evolvetechnology.com](http://www.evolvetechnology.com). If you're a bunch of IT



professionals and wanted to see our thoughts on it from the IT professionals end, we put that on [www.smbvirtualization.net](http://www.smbvirtualization.net) because we think it's two different audiences and we want to talk in different terms to the two different kinds of people. You know, you can follow us on Twitter both at Evolve Tech or at SMB Virtual. We're on Facebook. We're on all of these different places and I also post personally in all of those places as well.

**Richard Campbell:** David Sobel, thanks so much for coming on the show.

**Dave Sobel:** Thanks for having me, Richard.

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