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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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**Lara Rubbelke Manages SQL Server with the Enterprise Policy  
Management Framework!**  
**October 21, 2009**



[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 #131, with guest Lara Rubbelke, recorded Wednesday, October 7, 2009. 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](http://twitter.com/runasradio).

**Richard Campbell:** Thank you, Brandon. This is RunAs Radio. I'm your host, Richard Campbell. With me as always, my co-host, Greg Hughes.

**Greg Hughes:** Hey Richard, everyone. How is it going?

**Richard Campbell:** Well, I maybe jetlagged but you, sir, are getting married.

**Greg Hughes:** Yeah, by this time I don't even - - my brain is so completely squashed right now. I don't even know when this show airs, but we're recording it, hmm, what day is today? We're recording it like two days, three days before I get married, which is today, Richard.

**Richard Campbell:** Right, that's right. It's Wednesday, Bob, and yeah, it's a couple more days.

**Greg Hughes:** Saturday.

**Richard Campbell:** You'll get married on Saturday, and I was in Kathmandu two days ago so we're quite a pair.

**Greg Hughes:** Yeah, it's all that you're flying around and back, and yeah, well, you know, going for punishment as we say. Right?

**Richard Campbell:** That's it, yeah. No rest for the wicked.

**Greg Hughes:** But we've got lots of cool stuff out there to talk about though so we have to do this.

**Richard Campbell:** All right. Well, let's dive right into it. Let me introduce our guest. Lara Rubbelke brings her passion for architecting, implementing and improving SQL Server solutions to the community as a Data Platform Technology Specialist for Microsoft. This role is a pre-sales role for SQL Server. Her expertise involves both OLTP and OLAP systems, data management, performance tuning, encryption, ETL, and the Business Intelligence lifecycle. Compliance and configuration management are near and dear to her heart. She is an active board member and advocate of the Minnesota chapter of PASS,

that's Professional Association for SQL Server, and regularly delivers the technical presentations at local, regional and national conferences, user groups and webcasts. Notably, Lara has presented at Tech Ed, the PASS Summit, the Minneapolis SQL Server Launch, and numerous webcasts on MSDN and TechNet. Lara authored a number of the Microsoft whitepapers and was a contributing editor on "Expert SQL Server 2005 Development," the lead author, of course, is Adam Machanic. Prior to joining Microsoft, Lara was a Microsoft Most Valuable Professional but you can't have that title and work for Microsoft. Welcome, Lara.

**Lara Rubbelke:** Thank you.

**Greg Hughes:** Howdy.

**Lara Rubbelke:** Hi.

**Richard Campbell:** So we were talking to some of your associates. I believe it was...

**Lara Rubbelke:** I think it was Buck Woody.

**Richard Campbell:** We were talking to Buck Woody and he mentioned your name...

**Lara Rubbelke:** How can you forget that name?

**Richard Campbell:** Yeah. In the contents of EPM and I just suddenly realized, wow, we've never done a show on this, and EPM is a big deal.

**Greg Hughes:** Yeah.

**Lara Rubbelke:** It is? I had no idea.

**Richard Campbell:** Well, it's funny how SQL Server has grown into this thing that actually in some ways makes it easier to administer a lot of IT related tasks around that policy.

**Lara Rubbelke:** Yeah.

**Richard Campbell:** So I guess we better start at the top. What is the Enterprise Policy Management Framework?

**Lara Rubbelke:** Well, early in the development cycle, CTPs were coming out with SQL 2008 and I was just chatting with some of my colleagues, Tom Davidson, Dmitri Tchikatilov, they're off in the east coast and we were chatting about some of these features and when I was looking at SQL 2008 I was looking at it from the eyes of my composing background, and when I look at things I'd look at them as how can we solve a problem and what are the solutions to introduce to our customers that can help globally address something that's major pain.

**Greg Hughes:** Yeah.



**Lara Rubbelke:** So Tom actually had a great idea about using Policy-Based Management across the enterprise and having like a centralized Policy-Based Management infrastructure. So that little germ of an idea was built into what we developed as an EPM Framework or Enterprise Policy Management Framework. What this does, and it's available free off CodePlex, what this will do is allow you to extend Policy-Based Management to all versions in your enterprise but I'll put the caveat, it can never cost to go down anything below 2000. So buyer, beware on that. But for your 2000, 2005, if you wanted to do a policy management and report on the current state of how your environment is configured according to what you define as your best practices, you can leverage that great feature of Policy-Based Management and extend it down to those versions as well and look at it in a single viewpoint. So there are reports that are available that leverage Reporting Services 2008 and they give you insight as to where you have compliance problem according to your best practices. So it's really just a way to take that 2008 feature and push it out across the enterprise and have a centralized viewpoint of management.

**Greg Hughes:** So what does it mean to the business? Why, as a business manager, is this important to me?

**Lara Rubbelke:** Well, in a few different ways. First of all, I was a consultant and so I'll raise my hand and say I probably did it too, but when you deploy your environment you typically have that paper or this document, or something that defines this is how I'm going to deploy SQL Server.

**Greg Hughes:** Aha.

**Lara Rubbelke:** And in particular, very large enterprise customers have hundreds and thousands of instances of SQL, they like to have a nice consistent way of deploying SQL Server and maintaining it in the enterprise...

**Greg Hughes:** Sure.

**Lara Rubbelke:** Because it reduces the cost of maintaining that environment. So if something goes wrong in SQL Server, they could at least know that it's deployed in that same configuration and they can focus in on what other out layers could be causing the problem versus, well, this plague in SQL Server was thrown on this and since it's not thrown on the other instances, could that be the problem? So having a nice consistent configuration is pretty valuable at larger customers and smaller customers I'll say. The beauty of Policy-Based Management is that it allows you to maintain that configuration, maintain consistent configuration overtime. So as I said, I used to be a consultant and when I would go into environment, you know I'd have my little white hat on and they'd say I've

got this major problem, I would go and fix it and sometimes that involves changing configuration settings or moving things around, and in essence I might have been, and I'm probably putting myself up on like lots of law suits now, but I might have been actually defying what their proper configuration should be or what it is.

**Greg Hughes:** Sure. In order to fix the problem, you had to go through it and make a change. It might not be consistent with what their standard is.

**Lara Rubbelke:** Exactly, exactly. It's that that it's much better than I did, and it may not even consultant. It might be some junior or mid-level DBA who's just testing things out and happens to be testing it on production. I've had those calls before with managers saying, "How can I know..." This is back in 2000. "How can I know when somebody is like changing my Mac stuff setting on my server because it's causing problems...?"

**Greg Hughes:** Right.

**Lara Rubbelke:** "And seeing that this is happening and I just don't know who's doing it?" Well, with Policy-Based Management, what you can do now is maintain a consisting configuration or at least be notified when things are falling out of consistency. So having that consisting configuration, it's going to reduce management cost, it's going to ensure hopefully better and more predictable performance and configuration overtime, and a more secure platform overtime. So to take that feature and be able to at least apply it on a reporting platform for down version evaluation allows you to maintain that consisting configuration for 2000 and 2005 as environments are upgrading up to 2008.

**Richard Campbell:** That to me seems like the real inch pin here.

**Greg Hughes:** Yeah.

**Richard Campbell:** I find it quite common that when we set up our new versions or we upgrade SQL Server, we're pretty careful about getting all of our rules in place, but there's plenty of old SQL 2000 instances floating around out there that are probably pretty insecure.

**Lara Rubbelke:** And I would say that even overtime, so as you install, as you upgrade you're very careful, but not many people do spot checks on instances like six months later to figure out is this still in a consistent fashion with the way I've deployed it.

**Richard Campbell:** Yeah. It's funny how suddenly little configuration changes happen and you really have no record of how the heck that happened.



**Lara Rubbelke:** Exactly, exactly.

**Richard Campbell:** I've installed it one way, but today it's running this way.

**Lara Rubbelke:** Exactly. So PBM is going to allow you to at least get some kind of a reporting infrastructure to determine when did these changes happen at a minimum, and on the extreme side its going to disallow changes that might defy what your standards are.

**Greg Hughes:** Got you.

**Lara Rubbelke:** So it can tell you want to deploy that on 2008. So to have some kind of way to take that same infrastructure and apply it to 2000, 2005, it kind of brings everything into a single unified way to do your enterprise.

**Greg Hughes:** So the 2008 capability is sort of a configure report and prevent, that's what it sounds like you're saying...

**Lara Rubbelke:** Yes.

**Greg Hughes:** In the previous versions. And then you mentioned very briefly sort of, before we started asking more questions here, something about CodePlex. Is this a community project that's going on?

**Lara Rubbelke:** So what we've been talking about are kind of two things. So you have Policy-Based Management and that's available on 2008 and it's the feature of 2008 and when you open up Management Studio or you use PowerShell, you can apply policies or evaluate policies against your down version.

**Greg Hughes:** Right.

**Lara Rubbelke:** But that's an on-demand mode only meaning I have to be in there pushing a button every time I want to do an evaluation.

**Greg Hughes:** Exactly, got you.

**Lara Rubbelke:** But what's on CodePlex is a way to automate that evaluation against your down version. So in 2008, when your PBM is on 2008, you have the ability to automate evaluation. For down version, it is not automated unless you go to CodePlex and download the EPM Framework, and that is basically taking a PowerShell script. It looks through a series of loops and will do evaluation of a set of policies against a group of servers and store the results into a centralized database.

**Greg Hughes:** Got you. As I recall on a previous conversation briefly about this, this is something you could do for example as a scheduled

task. You might do it every couple of hours or everyday, or having it frequently as appropriate for your business but you could do it that way. Right?

**Lara Rubbelke:** You can, you can. The script itself allows for different parameters to be passed in. One parameter is that you can pass in a category of policies. So one thing I always impress upon my customers and the people that come hear about this at different presentations, I impress that within your policies you can categorize them and I always recommend categorizing your policies. The reason you want to categorize your policies is that you may have a set of policies that fall within a daily maintenance category and you only want to run those once a day.

**Greg Hughes:** Right.

**Lara Rubbelke:** You have another set of policies that maybe you want to run once in an hour or once a week and you have them categorized appropriately. Then you also have this other new feature in 2008 called the Central Management Server. The EPM Framework is hooked in with the Central Management Server as well to allow you to group your instances. So you have what are now logical group of instances so you can have a group of facts instances, a group of PCI instances, a group of just write out production instances and development instances. The framework allows you to pass in a group of instances that you could say apply Policy-Based Management for my daily maintenance against my production group and it will run on that schedule. So you could set it up to run once a day according to that category of policies.

**Richard Campbell:** Yeah. You've sort of mentioned PCI in that. I could see where a set of servers that are actually storing credit card numbers needs to have encryption turned on. There are a lot of rules around how PCI compliance has to be followed and that's much more strict than what the developers are going to want on their SQL Servers.

**Lara Rubbelke:** And the interesting thing about PCI is that that differs from some other compliance regulations. PCI not only tells you that you have to have these things enforced, but it also tell you you have to review your infrastructure on a regular basis and it has more strict guidelines that you don't just log who's looking at your sensitive data, but you have to review the logs. So the beautiful thing about 2008 was its myriad of features that really allows you to address not just getting things into a proper configuration but reviewing things overtime.

**Richard Campbell:** Can we talk about the kinds of policies that you can set that EPM will understand?



**Greg Hughes:** Yes. I was kind of curious, maybe some examples of policies, what are those different capabilities?

**Lara Rubbelke:** Sure, sure. So within SQL 2008, for a policy you may create a policy that dictates something like my SQL log-in must always have password complexity turned on. It was a feature that was introduced in 2005 that SQL log-ins can follow your complexity rules that you dictate in your Windows Server environment and that was a great thing. The problem is that people may not have always enforced it. It's a little checkbox and DBAs just may have not have thought to always check that checkbox. So in 2008, with the policy now you could say that all my SQL log-ins must have that password complexity rule enabled and it will enforce that real fine. So if somebody tries to create a new log-in and they don't enforce the complexity rules within your new log-in, it will roll back that transaction and disallow you from creating the log-in until you check that check box.

**Greg Hughes:** Just out of curiosity, what happens if you've already the log-in and then you change the policy to add that to your set of policy?

**Lara Rubbelke:** Now for existing log-ins, it will not disallow those log-ins because they already exist.

**Greg Hughes:** Sure.

**Lara Rubbelke:** But what it will do is report back to you through the application log and SQL Server area log where you have discrepancies according to the policy.

**Greg Hughes:** Got you.

**Lara Rubbelke:** So it's not going to enforce on existing log-ins, but it will come back and tell you where you have a problem.

**Richard Campbell:** Can we go further than this? Does it get much into the Active Directory side of things, or even ACLs around file access?

**Lara Rubbelke:** So here's where I would drag differentiators. You can use any tool for just about anything if you wanted

**Richard Campbell:** Right.

**Lara Rubbelke:** But there are certain things that you would say are not the right tool for the job. There are better tools out there for the job. File access is probably not the best tool for that job. While you can force the Policy-Based Management to do things more at the file system level and to do things at the operating system level, it's not the right tool. You want to leverage your Active Directory, you want to leverage group policy, you may want to leverage

System Center for other things. A very common example is when you install SQL 2008, you are provided with about 50 best practices policies out of the box.

**Richard Campbell:** Right.

**Lara Rubbelke:** And these are policies that are based on a previous version of the best practice analyzer. So it used to be a separate tool and you had all of these rules that were checked within the tool. Well, we're not releasing another tool, instead we're releasing our policies and you can check these policies against your instance. Well, some of these policies do things like I'm going to comb through my event log to find out if there are any errors that fall within that error number or something like that, and report back to you. Well, while you can do that with Policy-Based Management, I would still recommend using things like System Center for that kind of a check. It's the right tool for the job, it's more efficient, and Policy-Based Management can do it but it's going to be slower and it's going to have more overhead.

**Richard Campbell:** Right.

**Lara Rubbelke:** It's not the right tool for that kind of a job.

**Richard Campbell:** There's got to be a point here where you're really stepping on the space of System Center.

**Lara Rubbelke:** There is a little bit of overlap, but System Center itself doesn't go as deep into the configuration as Policy-Based Management will do.

**Richard Campbell:** Right.

**Lara Rubbelke:** So within Policy-Based Management, this is everything within the instance. It's about the instance and within the instance, and System Center itself goes up to the instance and you can force fit it to go further but it's not the right tool for that job. So with Policy-Based Management, you're going to be able to do things like I want to enforce naming conventions on my stored procedures within my user databases. I want to enforce configuration settings on my databases so that they all follow the same marching orders and have the same configuration for performance and configuration for recoverability. That's all within the domain of the Policy-Based Management.

**Greg Hughes:** How does one address the need to ensure that developers are building applications and interacting with the database in a way that will be consistent with the policy that you might run in production? You said it will be a common practice to leverage this across your environment so that your entire development lifecycle takes your policy management into account?



**Lara Rubbelke:** Absolutely. If I'm hearing the question correctly, it's more around how do I ensure that all of my environment have the same policy so that if somebody writes something against a test server and it works, that we're ensured that it's still going to work in the same consistent manner when we get to a production.

**Greg Hughes:** Right, or conversely that it's not broken from the beginning.

**Lara Rubbelke:** Exactly and it's not broken from the beginning meaning they create like a user table and don't follow the naming convention.

**Greg Hughes:** I mean, my experience is that if it's broken from the beginning then what ends up happening is not that they get fixed in the code, but rather that it ends up getting reconfigured on the server a lot of the time.

**Lara Rubbelke:** That's my experience too.

**Greg Hughes:** And there's just some gross problem there but that's the question that I'm trying to -- that's what I want to avoid.

**Lara Rubbelke:** Absolutely because by the time you get to deploying things to production, you're not willing to go back and fix things at the beginning. You want to just forfeit it because you're too far down the line. You're invested and you have to just get things working.

**Greg Hughes:** Right.

**Lara Rubbelke:** But the policies themselves, when you create a policy in an instance you can export it. It's an XML document. It can sit out on the file system. It can be shared with other instances as well so you can just pick that same policy and import it to one or more instances within your environment either one at a time or to a whole group of instances. So you could take a series of policies that are my deployment configuration policies, for example, and I deploy them out to production. I would also deploy those out to every other dev custom stage environment prior to production so that it's consistent and the configuration match what will be in production.

**Greg Hughes:** So what does deployment look like? What's the model for that? Is it a manual process, or do we have some automation built in?

**Lara Rubbelke:** Well, at this time it's a manual process through Management Studio, but I have seen that Bob Beauchemin, for example, has put some examples of how to move policies around. I think he is using SMO. I haven't been playing with that myself,

but I do believe Bob Beauchemin was playing with it. It's about a year ago, maybe a little more.

**Greg Hughes:** I just think about the environment like one that I'm familiar with where there thousands of instances of SQL Server for developers and at least hundreds if not thousands of instances of SQL Server for like a stage or test in a production environment and I could see where one would need to have a pretty solid story from a management standpoint.

**Lara Rubbelke:** It sounds painful absolutely, but if you want to think about it in context build, how do you manage this from a DBA perspective in very large environments? I have those customers who have got -- a number of customers that have several thousand instances each in production. So when you're deploying policies, you're not going to deploy one policy to one instance and do the right click configurations for Management Studio. In SQL 2008, we also introduce that Central Management Server feature.

**Greg Hughes:** Right.

**Lara Rubbelke:** So you can create. First of all, you register an instance as a Central Management Server and you create logical server groups within that central management server. One of those logical server groups maybe development, one might be production, etc, etc, and you register instances to those logical server groups and I have created scripts that help automate the registration of servers into those logical server group. So, you know, the automation of registration for that environment, it can be automated. Once you have those logical server groups configured and set-up within the central management server, you can do some pretty interesting things. You can right click on that production folder; that top list production folder, and you can say things like I want to run a query against all this instance and it will run. In one single query window, you're going to run a single query and it will produce results from all of the instances in a single view. You can also do things like I want to import policies to all of these instances. So that is how you would deploy all of your policies to all of your production instances at one time.

**Greg Hughes:** Yeah, it's cool.

**Richard Campbell:** That's awesomely powerful and horrifying at the same time. Like remember that great policy push with SMS where you disable SMS?

**Lara Rubbelke:** Yeah.

**Richard Campbell:** That's where I end up going, it's right to this spot and then I crippled my ability to talk to any of my servers.



**Greg Hughes:** It's funny how anytime that we end up having conversations in the IT world about pushing things and sort of configurations, it always goes back to SMS of like the 2000 to 2003 years and all of the pain that we felt.

**Lara Rubbelke:** You know, it is through that pain that we have been enlightened though.

**Greg Hughes:** That's true. Pain does amazing things, doesn't it?

**Richard Campbell:** That's what they keep telling me. I just thought it was a big pile of scars, myself.

**Greg Hughes:** They said that and fear is a great motivator so somewhere in there.

**Lara Rubbelke:** It sounds like you still loosely cover those days.

**Richard Campbell:** Well, and I do like the idea and certainly virtualization helps with this where I would be able to create a contained environment and do a couple of tests pushes of policy on that environment and see how it behaves before I go around rolling on the major machines.

**Lara Rubbelke:** Absolutely.

**Greg Hughes:** Well, of course a best practice for pretty much anything, whether it's SQL Server otherwise, would be do test environment and don't assume that you're changes are going to be innocuous, you know, anytime.

**Lara Rubbelke:** And you want to be careful about what policies you start with. You know, there are going to be some pretty easy policies that you'll look to deploy. In 2005, we had the Surface Area Configuration Manager.

**Richard Campbell:** Right.

**Lara Rubbelke:** And so people typically like enabled and disabled things according to the Systems Center Configuration Manager. Well, in 2008, you can take all of those configurations and throw them into a policy and you'll have a like experience that you would have had in 2005 with the Set Configuration Manager.

**Greg Hughes:** Okay.

**Lara Rubbelke:** So that might be kind of where you're start and just say, well, how was I enabling and disabling things in 2005 and let's build the policy around that and start deploying that out in like 2008 environment.

**Richard Campbell:** And typically, how are we communicating with the SQL Server? Is this all 1433

type communications? Is there anything special going on there?

**Lara Rubbelke:** Well, the Central Management Server, I don't think there's anything, any kind of special communication going on with Policy-Based Management. In the Central Management Server, I can't think of any special communication. Authentication and authorization is only available through Windows so you can't use SQL log-ins to register your instance as that can be in Windows only.

**Greg Hughes:** Oh, thank goodness.

**Lara Rubbelke:** So that's one thing to consider, but I can't think of any other...

**Richard Campbell:** And the only instance in SQL 2008 you have to have is the administration server.

**Lara Rubbelke:** Okay. Now, we jump across the band. So we were talking about Policy-Based Management.

**Richard Campbell:** Right.

**Lara Rubbelke:** True. And if we want to take that one feature, that PBM feature, and apply it with our own version, then we would leverage with "the EPM Framework."

**Richard Campbell:** Right.

**Lara Rubbelke:** For the EPM Framework, you need at least one instance of 2008 and one instance of Reporting Services 2008.

**Greg Hughes:** Okay.

**Lara Rubbelke:** Once you have those two things set-up in your environment, you're able to then set up the rest of the framework to do evaluation across your down version.

**Greg Hughes:** That's awfully cool. It doesn't matter which version of 2008 I'm running?

**Lara Rubbelke:** That's another good question. So it's does to a degree. So if you're talking about version, you'll need Standard edition or Enterprise edition. It will not work on Express because you need SQL agent in order to automate things.

**Greg Hughes:** Okay.

**Richard Campbell:** Right.

**Lara Rubbelke:** If you're talking -- and that's for edition, sorry about that. If you're talking about versions, then you want to be careful about SP1. SP1 introduce an issue with down version evaluation in any environment. So it essentially disallowed you



from being able to do evaluation against 2000, 2005 through PowerShell, through Management Studio, due to one of the things that they were trying to change or a fix that they introduce. So if you apply SP1, apply the cumulative update three or greater, and then you should be good to go.

**Greg Hughes:** Ah, okay. Got you.

**Richard Campbell:** And this really matters if you're running Service Pack 1 of 2008 which I would expect everybody ought to be doing.

**Lara Rubbelke:** Most people do. Most people, once those Service Packs came out they start testing them and trying to apply them. Now, you only need to have that cumulative update applied on that administrative server or what we call the Central Management Server, that central instance. So if you have that applied on that instance, then the rest of your version they shouldn't see an issue.

**Richard Campbell:** Well, and because folks get nervous about the hot fixes. I don't mind the service pack, but don't make me apply hot fixes.

**Lara Rubbelke:** Yeah. Well, you know, they are a little more nervous about cumulative updates and hot fix kind of have, in cumulative updates, they don't have the same kind of regular applied to the testing cycles that you would have with the Service Pack.

**Richard Campbell:** Right.

**Lara Rubbelke:** But they are pretty good and you typically don't apply them unless you need to, and in this case you would need to.

**Richard Campbell:** But only to the Central Administrator's Server.

**Lara Rubbelke:** Only to the Central Administrator's Server, yup.

**Richard Campbell:** I'm sorry if I keep jumping back and forth here between the features that are in 2008 and what's in the framework here.

**Lara Rubbelke:** Aha.

**Richard Campbell:** Detection of servers, how do we go out there and find all these old SQL Servers that are roaming around in our networks?

**Lara Rubbelke:** So if you don't have something like System Center that's coming through your network and figuring out where people are installing relevant instances of SQL Server, Microsoft last year introduce a tool called the Microsoft Assessment and Planning toolkit or MEP, and what MEP will do is discovery of different things and one of the things that

it discovers for is SQL Server Installation. So it will come through a range of IP addresses, or an Active Directory domain, or a text file with a server name and it will report back to you where you have SQL Server installed, what version it is, what edition it is, Server Pack level the whole nine yards, and when it was installed.

**Richard Campbell:** Right.

**Greg Hughes:** Cool.

**Richard Campbell:** That's getting back to our show with Buck Woody, I think it was 128, about the SQL CMS, which talks about using MEP and EPM and so forth together.

**Greg Hughes:** Right.

**Lara Rubbelke:** Exactly, exactly. So MEP allows you to put the discovery, and again I've got some scripts that help take all of that information that it has discovered because what MEP will do is store everything into a SQL Server table or a series of tables and I've got some scripts that will take those instances out of the table and then register them into a folder in the Central Management Server.

**Greg Hughes:** Oh, cool.

**Richard Campbell:** It is very sleek.

**Lara Rubbelke:** Yeah and like I said when I think about all these features, I always think about my customers with the thousands of instances.

**Richard Campbell:** Yeah.

**Lara Rubbelke:** Because if I have to tell them that they have to right click and register 3,000 times, they would laugh me out of the room and...

**Greg Hughes:** It's a non-starter, yeah.

**Lara Rubbelke:** Yeah, it's a non-starter and they'd have Carpal Tunnel and the all workmen comp issues, all that. So anytime you can just script it. If you can't script it, you shouldn't do it.

**Richard Campbell:** Yeah. Well, you cannot allow per machine touch at that scale. It's just not feasible.

**Lara Rubbelke:** Uh-hmm, I agree.

**Richard Campbell:** I've got to think that PowerShell has got to play a huge role in all these things.

**Lara Rubbelke:** PowerShell is the heart of the whole EPM network. So when they released one of the early CTPs, I think it was 5.0, they released the first two Commandlets that were then released with the production RTM, and these Commandlets, one of



them is an execute SQL CMD and it's just executing a SQL statement. The other one is invoke policy evaluation. That one Commandlet allowed for the EPM Framework. So what I do within my PowerShell script is essentially take that commandlet and wraps it within a loop to loop through policies and then through another loop to loop through server instances, and does some error handling within the scripts and allows for different parameterization. So it's really just the fancy way of doing a couple of loops.

**Greg Hughes:** So real quick before we finish up, what are your top -- I don't know, you pick a number, let's say top three policies that somebody should implement or apply first.

**Lara Rubbelke:** Oh my gosh! You know, you're going to try and pin me down into something.

**Richard Campbell:** Only three.

**Lara Rubbelke:** Only three.

**Greg Hughes:** Consultants at heart don't like to be pinned down, do they?

**Lara Rubbelke:** I know and I still have the heart of a consultant even though I've been removed for about two plus years.

**Greg Hughes:** Yeah.

**Lara Rubbelke:** I do find myself hard-pressed to come up with three that everybody should apply only because everybody's environment is different, but I think the first thing I would do is look at that surface area configuration and apply those policies.

**Greg Hughes:** Sure.

**Lara Rubbelke:** I also would look at things like a database configuration. So if you have a deployment document that says that my databases must always be in full, that my autoshrink must be disabled, and my autoclose must be disabled, things like that. I would set up a policy for just database configuration. That seems like a no-brainer to me, and often people times people deploy databases and may forget to double check that especially at that junior level.

**Greg Hughes:** Right.

**Lara Rubbelke:** They just may forget to think about the recovery model and put it into simple or put it into full when it's expected to go the other way. I've been a consultant where I've had to deal with customers who thought that their database wasn't simple and never took a transaction like back-up, and all of a sudden they run out of file space.

**Greg Hughes:** Right, exactly.

**Lara Rubbelke:** So things like that are pretty common in my opinion, but because I'm a compliance junky I also look at the client regulation. So if you are looking at SOX regulation, I would start combing through those Sox regulations and figure out, okay, if it's telling me that I have to have complexity rules on how I should implement this as a policy and enforce it and monitor it overtime because that's going to reduce my time over the next year in reporting that because I'll have all of that information in my event log and I don't have to comb through and set up an infrastructure to report back to me. It's automatically doing it for me. So I would look at regulatory requirements as kind of another place to try and reduce my heartaches.

**Richard Campbell:** Well, that's a much more subtle set of policies too because now we're talking more about the logging of changes and log ins and logs outs. That's a lot of little granular policies that need to be set to actually have a good picture.

**Lara Rubbelke:** Absolutely. The log-in and log-out, that would probably be something more in the auditing side of things.

**Richard Campbell:** Right.

**Lara Rubbelke:** So you have SQL Server Audits and other tools in SQL Server, but as far as the password rule and not just log-in/log-out but when did somebody made a change to the configuration of this password rule on my log-in.

**Richard Campbell:** Yes.

**Lara Rubbelke:** So anything that is considered to be more on that configuration level, it's pretty easy for me to day let's start looking at the policy for that.

**Greg Hughes:** Very cool.

**Richard Campbell:** Lara, I think we're about out of time. Any last words before we wrap up?

**Lara Rubbelke:** No, it's been a lot of fun.

**Richard Campbell:** Well, we try to have a lot of fun.

**Lara Rubbelke:** I'll be talking about this at greater depths at the PASS Conference in November so if people want to hear more about it, I'll be out there. I don't have the fixed schedule yet, but it will be sometime during those three days. So I'm going to go into some depths on Policy-Based Management, what are the different pre-SP1, post SP1 changes mean, and how things are evaluated just so people have a better and deeper understanding of EPM.

**Richard Campbell:** Lara, thanks so much for having you on the show.



**Greg Hughes:** Thanks a bunch.

**Lara Rubbelke:** No problem.

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