

Daniel Shapiro on SQL

From The Efficiency Platform Expert Interview Series

FILE UNDER: SQL

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Interviewer: Mary Allen



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About This Document

This is the transcript of an interview conducted with Daniel Shapiro, Senior Product Manager, Server and Tools Business Group for Microsoft Canada, in April, 2010. The interview provides the content for a podcast through IT in Canada's *The Efficiency Platform* microsite (<http://theefficiencyplatform.itincanada.ca>). This document provides an edited transcript of the interview, helping readers to understand how SQL helps companies to address real-world business challenges.

The interviewer is Mary Allen, Editor responsible for The Efficiency Platform microsite.

Mary Allen: Hi, this is Mary Allen with IT in Canada, and I'm here today speaking with Daniel Shapiro, senior product manager, Server and Tools Business Group from Microsoft Canada, about SQL Server. Thanks, Daniel, for taking the time to speak with me today.

Daniel Shapiro: Thank you. It's great to be here.

Mary: If you don't mind, I'll just launch into some of the questions I had for you about SQL. My first question is really a broad based question about what a lot of us see as one of the world's most popular databases. Really, databases are most interesting when applied in a business context. So as you talk to customers in Canada, what are the three most common business problems that in-house developers look to address with systems based on SQL?

Daniel: Let me start by telling you a little bit about what is going on right now across Canada. Companies are being faced with really tough choices, and IT departments are being asked to do more with less. And there are three trends that are emerging, or that have been driving the market lately. One is productivity – here I'm talking about doing more with less. For developers, more productivity means worrying "How can I deliver on what my managers are asking me to do?" while at the same time, departmental managers are asking, "How do I ask my developers to become capable of delivering more?" So productivity is a really big issue for developers that is even more critical today.

The second trend is that as companies try to do more with less, they're looking to take advantage of some of the innovation and the cost savings offered by the cloud. To prepare for this, developers are being asked to extend their skills, or in some cases, to skill up in terms of building for the cloud or to move solutions to the cloud, or to re-architecting some things.



DANIEL SHAPIRO, SENIOR PRODUCT MANAGER, SERVER AND TOOLS BUSINESS GROUP, MICROSOFT CANADA

And the third challenge is that businesses are trying to understand what's going on in their businesses in real time. For this, they're looking to business intelligence and specifically to BI solutions. They're turning to their IT departments and asking their developers to basically unlock the customer and other data that exists in their databases.

When we look at the SQL product, it's really about unlocking those three opportunities or trends, as well as other things. This is what I'm hearing is going on across Canada.

Mary: OK. So in the third scenario, where businesses are looking to understand their business in real time, the tools that would be used are business intelligence applications which would be used in conjunction with SQL. What other tools are typically used these days?

Daniel: By developers, specifically?

Mary: Yes. By developers, when they're building the kinds of solutions that you identified.

Daniel: Absolutely. Many of the solutions that are being built today are much more complicated, and often are mission critical, so quality is really critical. To ensure this quality, developers are using great testing tools that they can depend on to make sure that their software is robust and able to stand the test of their business requirements. The other piece is collaboration tools, specifically for developers. When you think about building a piece of software from beginning to end, there are potentially many people involved as the process moves from architecting a solution, through developing, to testing. The code control software and certain types of developer collaboration software can be really useful in those types of projects.

Mary: Daniel, can you offer a couple of examples of applications that have been built by in-house developers over the last six months? Projects that you would see as particularly innovative?

Daniel: We see a ton of amazing innovation going on in companies across the country. We've been very fortunate to partner with most of the enterprises you can name in Canada, in terms of helping them unlock opportunities at a lower cost. One that pops into mind, and one that you'll actually soon hear quite a bit about because it's such a great story is CAA in Ontario, the Canadian Automobile Association. They're basically looking to SQL and to Visual Studio as well as to our BI stack with SharePoint to unlock some amazing power inside their business – the ability to report on data in near real time.

It's basically going to save them lots of time and money in the short term, but what's really impressive is that it's also going to put them on even footing with some of their biggest competitors in the financial industry. They're really excited, and we're actually going to be very excited to tell their story a little bit more broadly. Actually, we're going to be telling a lot of companies' stories in the coming months because they're so exciting.

Mary: So we should look for more on CAA, the Canadian Automobile Association. As another example, I've been doing a little bit of reading on the OGD, and speaking with some of the folks at Microsoft about some of the applications that are built on that platform. But what about software product developers? These form another group that works extensively with database products. Is there a sizable community of software product developers in Canada that work with SQL, and how would Microsoft support this group?

Daniel: We have the best software developer community in the world here in Canada. We have an unbelievable software developer community, and I'm not talking just about software developers that build just from the Microsoft

platform and technologies. I'm talking about all software developers. We have such a wonderful Canadian community.

For those developers who really think of themselves as part of that Microsoft community, or who want to build for the Microsoft platform, we have tens of thousands of developers that we talk to on almost a daily basis, as well as events like our Tech Days training tour that runs in the fall. The tour will come back for a third time this fall, and we will visit something like seven plus cities where we do multi-day deep training at really low cost for those developers. We also run – and are just now actually are in the midst of running our Energize IT tour - which is basically designed to show what's coming next to the developer community. Right now we're actually on tour talking about SQL 2008, Office 2010, and some other great things. So we have many great opportunities to meet face-to-face with developers.

We also have a very rich engagement online through our developer evangelists who work across the country, talking to developers each and every day, and through user groups and online forums, blogs and Twitter. So there's lots of ways to get plugged into the Microsoft developer community.

Mary: I've attended your Tech Days presentations in Montreal and in Toronto, and I know firsthand about some of the buzz that gets generated around those training days. What about software developers that may not be part of the Microsoft community?

Daniel: In terms of how can they get involved?

Mary: Yes. How would they use SQL?

Daniel: Absolutely. So as a Microsoft developer, there are amazing benefits to using SQL. We try to ensure that developers can take one kind of major design point from our platform end-to-end, and that they can always take that skill set with them. So, as a .Net developer, building for SQL verses building for SharePoint, or even as a Silverlight developer, your skills should be able to come with you.

But, it's not closed to just Microsoft developers – SQL can be used by any number of other developers, including PHP developers and Java developers. We have great plug-ins that basically expose SQL to developers of pretty much any platform who would like to use its functionality. There are a number of fantastic software companies and ecosystems that can also use SQL server as part of their solution. SAP is a great example – SQL runs beautifully under SAP. In fact, a lot of customers actually prefer that solution. There are a lot of different scenarios in which someone who may not typically use Microsoft products throughout their business could use SQL server for certain solutions.

Mary: And so this is a good way from Microsoft's perspective of using interoperability to extend the reach of SQL as a product, as a standalone product?

Daniel: Actually, I wouldn't tend to think about it just as SQL. When you think about Microsoft's platforms as a whole, which range from our SQL data platform to our collaboration platform, or to our BI stack like SharePoint, there are many opportunities for interoperability across the business. We love this fact, and we design into our products a rich set of interoperability standards that the industry looks to and can depend on from Microsoft that extends across the broad Microsoft platform offering.

Mary: I think that's a very good approach. Can you give me a couple of examples, Daniel, of Canadian software product firms, ISVs that are working with SQL today?

Daniel: Sure. One story that I enjoy talking about is a software firm called Merge Healthcare www.merge.com/. They have a really interesting healthcare solution where they have essentially built imaging software for the imaging equipment that you might depend on for diagnosis when you go to the doctor. An example might be an MRI machine, or other equipment that the doctor uses to prepare to perform a procedure. This equipment generates an image – or set of image files -- that the doctors can then analyze.

What Merge has done in one of their solutions is they've basically created a web interface to expose and manage those files to allow viewing of the images. In this solution, the back-end that they depend on is SQL. In fact, the entire platform is based on Microsoft technologies, and Microsoft .Net. One of the things that they've done is use Silverlight on the front-end as that is also .Net. Thanks to the power of these combined tools, they can leverage a great user experience on the front-end, and a great database experience that is reliable and scalable on the back-end.

Mary: So this would allow healthcare professionals, to work on their diagnostics from anywhere, anytime then, if it's a web interface?

Daniel: Yes, that's correct. They can basically view those files through the web, but the interesting thing is that there would typically be multiple people viewing the file - multiple doctors, multiple specialists and others that could be accessing a file at the same time. Moving around those files tends to be a big problem, but Merge has developed some solutions to overcome that challenge.

Mary: I would imagine that the image files would be gigantic, and a huge challenge to move around and manipulate that way, so that's pretty impressive. I'm also thinking that with the web interface, and sharing so that a number of people can view at the same time that you end up with a new level of collaboration amongst healthcare professionals.

Daniel: Yes. And through this collaboration and sharing, they are also able to maintain the high fidelity of images, which is required in the medical field. I don't have a medical background, but Merge knows their business. One of the things that they really care about is making sure that the technology can deliver all the same requirements that a doctor would have of an x-ray machine – that they can provide that level of fidelity. So, the quality of the images and the tools that they build to provide it is amazingly innovative.

Mary: Yes, it's very impressive. The third group that I wanted to ask you about today, Daniel, is the service provider community. Everyone's talking about it, so I guess we should too. And, I'm thinking specifically here about interest in software enabled cloud delivered services. I think that SQL must be at the root of much of this activity. Can you describe how Microsoft enables hosted service providers to embed SQL in their offerings?

Daniel: Yes. So, there are actually a couple of interesting things on that question that I'd call out. I don't know if you know this, but a good chunk of the software developed in the country - in terms of independent solutions - is delivered through some sort of hosted model. On the back-end, these depend on very reliable and scalable server architecture, and companies are increasingly turning to elastic clouds to serve that up. In Canada, I can think of a couple of interesting points. One is that there are hosting providers who provide infrastructure. We work with a fairly large community of these across the country that sell infrastructure and provide SQL as an option. For example, if you were going to buy some web hosting or if you moved to a hosted SharePoint solution, SQL is obviously something that they would provide as part of that.

Another way that companies turn to SQL to support their hosted solution is when software companies use SQL to basically manage their data on the back-and-forth – in their own home-built data centres. With SQL, they are able to

achieve some really incredible scale, manageability, and it is easy to build for it – companies can realize all of those benefits in their own managed infrastructure.

And a third tier is turning to an elastic cloud – to an offering like Azure. In January, we launched Windows Azure, and with that SQL Azure. Basically, SQL Azure is an elastic database in the cloud that a software developer, a software company or any company that is building a solution, or is looking to a solution, can access without having to worry about infrastructure management or the scalability limits of their infrastructure. As they build for SQL Azure, it scales up to whatever the needs are. Software companies and web delivered services software companies in particular, are starting to look to offerings like SQL Azure for delivery on the back-end. We can talk about a couple companies that can do that, if you like.

Mary: Yes. I would be really interested in talking about those companies. One of the things that I'm hearing is that elastic cloud offerings like Azure allow smaller organizations to get in the game in a way that they may not have been able to before. There is that ability to support and fund the needs that a company might have now – while it anticipates the success of the venture - without a gigantic investment upfront. I've heard some discussion around how Azure and SQL Azure will allow more people to engage in startups than was possible before, so please do tell me who you're talking to and what some of these examples might be.

Daniel: Sure. Well, on the SQL Azure side, one interesting Canadian story is Sitemasher, a company that at a very basic level delivers web hosting, but which offers much more than that to its customers. Originally, Sitemasher started off managing the data center for its own business. What they've done since, as they moved to hosting, is to look at the Azure platform, including SQL Azure, and said, "Yes, there's an opportunity for us to focus on the software innovation." Innovation is what their business is all about -- and with hosting they do not have to worry about the infrastructure management side, or about growing that infrastructure as their business grows. Essentially, Windows Azure and SQL Azure will grow with their business, or shrink at times when they need to lower the dependency.

There are spikes in every business, whether it's the time of year, or the type of businesses the company is selling to. Sometimes the infrastructure has large heavy loads placed on it and sometimes it doesn't. Companies can benefit from the elastic capabilities of SQL Azure and Windows Azure by essentially scaling as needed. Sitemasher is a great example of a Canadian company that is doing that.

Mary: If you had to estimate, what proportion of SQL apps do you think are delivered via the cloud today? How do you expect this will change in the future? What's your projection for the future?

Daniel: Well, today the cloud is still fairly young. When I talk about the cloud, I'm talking about the elastic cloud. What isn't so young, though, is hosted services, which Microsoft has been at the forefront of for some time. If you go to hosters across the country, like Share Web or others, they're already delivering solutions that are essentially cloud solutions based on SQL. There's a really rich market that's been growing at the double digit rate in Canada and around the world, just in that business. And then there's up and coming growth, and the huge new opportunity for businesses with the cloud. It's hard for me to predict what the opportunity around the cloud might be - I think there are a lot of other sources that might be better able to tell you about market sizes for the cloud moving forward.

Essentially, though, we're having that conversation pretty much with every customer we talk to. We're talking about the cloud and the benefits that the cloud brings, and also what Microsoft offers. We offer the best and the broadest cloud solution and cloud platform for businesses, whether they're our partners and software developers, whether

they're building solutions for other businesses, or whether they're a customer, big or small, startup or enterprise. Cloud really offers different types of solutions for different types of businesses and we have a great set of offerings there.

Mary: So, there's an entry point for you no matter what the size of your business is?

Daniel: Absolutely. For a startup even, cloud offers an opportunity that did not exist before - the ability to build a software solution that requires a ton of reliability, a ton of scalability, without the capital costs that a business would have needed to invest in before. That's one side. On the other side, is it also gives small businesses - not just software developers - but small businesses the ability to take advantage of IT capabilities like hosted email that they wouldn't otherwise be able to take advantage of.

For example, we offer our Business Productivity Online Suite (BPOS), which includes things like Exchange Online, or collaboration software like SharePoint. Given the size of the IT department in many small businesses, it was not always possible for companies to get these same capabilities. With the cloud, they're able to take advantage of those benefits that large enterprises now have, but with the ability to scale as the business scales without the upfront cost. There are benefits for all sizes of businesses.

Mary: Right. So, to summarize, you see an existing robust business where hosting has been delivering Software-as-a-Service, essentially, as a cloud offering for some time now. That's well developed. Also, there is this other new opportunity that's been enabled with SQL in the cloud, and other applications that we really can't even visualize yet. These are web applications or applications for the future. I appreciate your taking a stab at the future question, Daniel. That's really great. I think I've asked my questions, but is there something that you would like to add to our discussion that you feel is important to tell IT in Canada listeners about SQL or the cloud?

Daniel: Yes. Well, when we try to put on our customer hat and think about what our customers are asking us about SQL, they are looking for dependability, scalability, and really enterprise ready solutions for what they're trying to build. And we are being asked by customers that may be small startups looking to build small solutions, or larger enterprises.

We like to think about SQL as really covering that entire spectrum, through products ranging from the SQL data center edition, which we're actually launching next month, all the way to SQL Express or SQL Azure in the cloud. SQL is really becoming, if you think about it, Microsoft's data delivery platform, as well as basis for the analysis, business intelligence and reporting services that businesses really depend on.

There's a lot to kind of think about when you think about SQL. It's not really for small businesses alone and it's not really just for enterprises. It's for a really broad spectrum of solutions.

Mary: It serves as the foundation, I think, of a lot of different solutions.

Daniel: Yes.

Mary: OK. Daniel, thanks very much. I appreciate your sharing your insights into SQL and other Microsoft offerings today.

I'm Mary Allen, Editor at IT in Canada, and this podcast had been brought to you with the support of Microsoft Canada. Thanks for listening.

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