



General Motors drives innovation in its business processes — and a global industry



An interview with

Ralph Szygenda,
Group Vice President and CIO

Ralph Szygenda, group vice president and CIO of General Motors, one of the world's largest companies, talks about improving alignment between IT strategies and business strategies, getting IT vendors to collaborate and "enjoying the ride."



Q. What are the parallels between building an IT organization from scratch and building a car from scratch?

A. There are many similarities between building a car and building an IT organization. The engine of a vehicle, what makes it run, is very similar to the back-office operations of an IT organization. But the styling and innovation associated with the vehicle is what differentiates it in the marketplace. Those kinds of things really differentiate you as an IT organization as well.



Q. What's unique about working at General Motors?

A. The product is one of the most complex of any product produced in the world. And you quickly

come to the realization that this is like being in the fashion industry because everyone—friends, family, neighbors and strangers—has an opinion and critiques your products every day. And the company itself is complex—it's big—and it's global. So it is no small feat to say we run our business processes the same throughout the world. We don't do things differently in the United States versus Europe or Asia.

Q. General Motors' unique history includes having its own IT services division that was EDS and was eventually split off into a separate company. What was that like?

A. In 1996, GM decided that it was best that EDS be split off. But when it was split off, all of the company's IT people went too; therefore, GM was left without an information technology organization. Think about this! No IT organization for the world's largest corporation. That's when I was brought in as the company's first-ever CIO. When I arrived the company was decentralized—nothing was common; all the processes were different. The company had more than 7,000 information systems.

Q. What were the changes that needed to be made when you started?

A. When I arrived, I sat down with the chairman and CEO of the company, who at the time was Jack Smith, and asked, "Jack, what's your biggest problem?" He said, "Ralph, it takes too long to design and develop a car. We're not competitive anymore. We have to change that. Cycle time has to be reduced." And so that was my first major challenge as the CIO of the company.

Also remember, at the time, I didn't have an IT organization but had the responsibility to help transform the company. So beyond changing the product development process and reducing cycle time, I was trying to help make manufacturing more efficient and coordinate the delivery of \$80 billion of production material that needed to arrive just in time in order to build and ship some nine million vehicles throughout the world.

Q. How did you meet the challenges?

A. I hired a thousand of the best information technology people in the world from outside GM—the largest influx of executive talent in the history of GM. Then I took a thousand people from inside GM: the best automotive process people. I put these groups together and created the Information Systems & Services (IS&S) organization. It was a powerful organization because it combined business people with information technology people, so everyone understood what to do from both viewpoints.

I recognized at the time that in order to be the best automotive company, we had to have the best digital environment that ever existed in the history of any corporation. And to do that, we'd need this type of talented team.

Q. With a company as large as GM, how do you motivate the team?

A. I explained to them that we had the responsibility to improve an icon in global business, to create the best digital business. Also, by ensuring

* "The styling and innovation associated with the vehicle is what differentiates it in the marketplace. Those kinds of things really differentiate you as an IT organization as well."

they know that their job is first to help the business succeed. That means building information technology that produces bottom-line, positive business results. This is what I call Precision IT.

Information technologists love to build information technology; in a lot of cases, they forget that there is an end goal. I've told my people over the years that if they build a new information system that has two million lines of code and they do it on time and within budget but it doesn't change the business, it's worthless. That's really disheartening to information technologists, but it really gets the point across. There is no doubt about it. We are here for one reason, which is to improve the business.

Q. You created, from scratch, an internal IT organization, but you've also been innovative by embracing outsourcing of IT. How do you empower people in that kind of environment?

A. When I arrived at GM in 1996, the IT of GM had been outsourced already for 12 years. The outsourcing model was not what I liked and, I believed, not right for GM. The possibility of insourcing tens of thousands of people back into GM did not make sense. We did insource the thousand people discussed above to architect and deploy IT, but bringing in those coding and running computers and operations was not feasible. We had to make outsourcing work.

About two and a half years ago, I asked the CEOs of the major IT corporations that we work with if they wanted to help change the IT sourcing business model. Remember, these are fierce competitors, but again I asked them if they wanted to assign people to GM to work together as a team to define a model for standard IT work processes across their companies. I was clear that we weren't interested in telling them in detail how to run their companies, but we were looking for collaboration that in the end would help GM but could be used by them in their own organizations or with any other clients they wanted.

Why did I do this? We're running a real-time company—a seven-days-a-week, 24-hours-a-day operation at GM. When a decision needs to be made, there's no time to have a meeting to discuss it. [The IT] companies have to know how to interact and collaborate with each other instantaneously. The only way to do that is by using common, well-understood IT business processes.

Q. What are the real successes that have happened at GM in the past ten years?

A. In 1996, we had more than 7,000 information systems. Today we have fewer than 2,500. That's still probably too many, but it's a significant reduction. We've redone the entire telecommunication environment of the company. We have driven standardization throughout the company worldwide. And, perhaps most significant, we've taken \$12 billion of IT cost out of the company in ten years. Of that savings, we reinvested \$7 billion back into information technology to further transform the company and gave back \$5 billion to the company for use in other areas of the business.

Q. You said everything information technologists do must have an impact on the business. Have you and they succeeded?



A. Without question. The real impact was in being able to change the company. We did.

We've standardized our purchasing processes throughout the world, linking to all of our suppliers through an online capability called Supply Power. We've standardized other processes, including sales and marketing, and leverage the same technology to go to market in about every country in the world. We've created a system called Socrates, which is a standard internal communication portal that all of our employees use throughout the world.

* "In order to be the best automotive company, we had to have the best digital environment that ever existed in the history of any corporation. And to do that, we'd need this type of talented team."



Most importantly, in the product development area of our business, today the cycle time for developing vehicles has been reduced by more than 50 percent. Where we once had 23 different computer-aided design systems, today there is one that is used by 30,000 engineers and designers and support staff around the world. Ten years ago they didn't even talk to each other. Now they work as one team. It's quite a different company.

Q. You've helped transform GM to a global business through innovation and technology. Has it been worthwhile?

A. Sure! GM, as any hundred-year-old company, has many challenges and areas that must change to be successful. This challenge is what a CIO should relish.

The exciting thing about a journey like that occurring at GM is that you know you have to get to the destination to be successful, but the fun is in the journey itself. What happens on the way? Was it enjoyable? Did you make a difference? Did you overcome obstacles?

The information technology journey is the same. You have to enjoy the path. You also have to do something that's pretty interesting along the way. When you drive a car, it's not just about getting from A to B; you want to enjoy the ride.

It's always been my philosophy that, if you are trying to change a business, why not change it to be better than anybody else?

© Copyright IBM Corporation 2007

IBM Global Services
Route 100
Somers, NY 10589
U.S.A.

Produced in the United States of America
07-07
All Rights Reserved

IBM and the IBM logo are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both.

Other company, product and service names may be trademarks or service marks of others.

References in this publication to IBM products and services do not imply that IBM intends to make them available in all countries in which IBM operates.