

GM says supercomputers to keep recalls in check (Update)

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General Motors Co. says a new supercomputing data center and a fledgling shift to bring software development in-house should help it limit the size of future safety recalls.

The Detroit automaker, which formally opened the giant data storage center in suburban Warren, Michigan, on Monday, said the changes are examples of how it is moving faster to cut costs and serve its customers better by bringing more computer technology inside the company.

In the past, GM's regional operations tracked problems by themselves, sometimes without communicating with other regions, even though many of its cars are now sold worldwide. Engineers in one region would check a problem part, but it wasn't studied worldwide, at least not at the early stages.

Now, with new software developed by GM's so-called innovation centers and the data storage, problems are spotted quickly when they crop up across the globe, and they're assigned to the right engineer who can work with parts makers to fix the problem faster, said Randy Mott, the company's chief information officer.

"You'd hope that if there is a problem with a set of components, that you understand which components were potentially susceptible and you would expect your recalls to be smaller," Mott said. "You identify it earlier and you certainly limit it to only the ones affected by whatever the problem was."

GM, which typically sells more than 9 million vehicles worldwide each year, makes cars and trucks in 30 different countries. Many of its parts are common worldwide, so if there is a recall, it can be large and costly. When problems are spotted and fixed early, the size and cost can be held down, Mott said.

GM also said Monday that during the next two years, the company will close 23 data centers worldwide and consolidate them into its two new Michigan facilities. GM says data centers at Google and Facebook were benchmarked to draw up plans for the state-of-the-art facilities. The Warren Center cost \$130 million to build, while the Milford center will cost \$100 million. GM will spend another \$158 million on each center for equipment.

It's all part of a push led by CEO and Chairman Dan Akerson, a former telecommunications executive, who believes it's important for companies to have their own information technology rather than outsource it to other companies. GM had outsourced 85 percent of its software development and computer technology.

By consolidating the data centers and hiring about 9,000 people to staff four U.S. "innovation centers," the company hopes to bring 90 percent of the work in-house within five years, Mott said. Competitors, GM said, already have about 30 percent of their information technology work in-house.

GM, which began the data consolidation in the fall of 2011 and the software efforts last summer, isn't sure how far it has moved toward the 90 percent goal although it has hired 64 percent of the people needed to do it.

GM, Akerson said, now has the ability to watch its factories for production and parts supply problems, and perform more accurate

virtual crash tests, saving costs and speeding new products to market. In the past, when most computer technology was outsourced, GM couldn't even monitor its own network of computers, he said.

"The responsiveness wasn't there," he said of the outside vendors. "There isn't a company on a global competitive basis that isn't good at I.T., that doesn't control its destiny by virtue of better information in every aspect of the business."

GM also can use high-powered computers to analyze data across the globe to discover sales trends and potential new markets for its vehicles. The company said new crash-test simulations that were made possible by the data centers are cutting down on the number of physical crash tests that are needed. That saves the company roughly \$350,000 per test, GM said.

Even though GM is taking on the added capital investment and personnel costs, Mott said it will save money by eliminating the cost of paying outside computer technology vendors.

Bringing computer functions into the company can make it more agile, but there are risks as well, including hiring and keeping people who have many job choices, said Bryan Britz, a vice president with Gartner Inc., a firm that advises companies on information technology issues.

Most companies that outsource computer functions continue to do so and don't try to build them from inside, he said. But he also said GM is large enough to build and maintain a talent pool.

"It really does come down to execution," he said. "That has proven to be, for a lot of organizations, a barrier too big."

GM also needs to make sure that it uses the remaining outsourced work

to bring innovation from outside, he said.

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