**Your Car’s New Software Is Ready. Update Now?**

**By ERIC A. TAUB SEPT. 8, 2016**

TIRED of your vehicle and its aging, limited features? Don’t trade it in just yet. Download new software instead.

In some cases, that is already possible. And over the next few years, as the already extensive software on modern cars becomes even more feature-rich and upgradeable, manufacturers mean to step up the effort. They plan to offer many types of improvements or repairs through downloads that are beamed directly to the car via satellite, Wi-Fi or cellular signal, without the vehicle’s having to be brought into the shop.

Eventually, your car will be serviceable like a giant smartphone, with new features added periodically while you sleep.

And the automaker can save money. With cars and trucks increasingly reliant on complex computer code to operate, manufacturers can cut costs if they can correct or improve a vehicle’s functions without having to get the car into a dealership.

Manufacturers are also looking at software downloads as a new source of revenue, turning on features remotely if the owner pays a fee. It would be similar to the way most new cars come with the hardware for SiriusXM satellite radio but require owners to pay a subscription fee.

The trend does pose challenges. Security is important to prevent unauthorized software, including Trojan horses or other malicious malware, from being inadvertently downloaded. And once software is downloaded, the potential exists to hack it, as two security researchers demonstrated last year with a Jeep.

A direct communications link between an automaker and its vehicles means the company has the capability not only to upgrade software but to monitor vehicle systems as well. Location, driving style and serviceability can all be tracked.

Since May, G.M. has offered its optional Smart Driver technology to the three million customers who own vehicles with 4G wireless capability. The system tracks and analyzes driving characteristics, suggesting ways to improve fuel economy and reduce wear and tear. The company will also suggest that drivers with strong scores seek insurance discounts.

In the future, vehicle manufacturers might even refuse to assume liability for an autonomous vehicle that causes a crash but whose owner did not bother to accept an upgrade, said Lars Reger, the chief technology officer at NXP Semiconductors, a supplier to the automotive industry.

For all the issues and opportunities posed by the upgradeable car, one business consideration might seem crucial for automakers: Will the ability to continually improve features and performance make the idea of buying a new car less enticing?