The Department of Transportation sees vehicle-to-vehicle communication as a critical piece of tech that will make driving safer.

Before self-driving cars can safely ply U.S. roads and highways, they'll need to be able to talk to one another to anticipate a sudden stop or turn, and ultimately, avoid accidents.

While some automakers are planning to incorporate vehicle-to-vehicle communication technology in future cars—the 2017 Cadillac CTS will have it—there are currently no rules mandating such a feature. That could change sooner than expected.

On Thursday, U.S. Department of Transportation Secretary Anthony Foxx said the agency, along with the National Highway Transportation Safety Administration, will fast-track a proposed rule
that would require all new cars, even those that need a driver, to have vehicle-to-vehicle communication, known as V2V.

Speaking at Delphi Labs in Mountain View, Calif., Foxx said that he has directed the NHTSA to accelerate the timetable on the proposed V2V tech mandate. The DOT will send the proposed rule to the Office of Management and Budget for review by the end of 2015, a year ahead of schedule.

The DOT will also speed up testing on the 5.9 GHz spectrum reserved for V2V to ensure wireless communications from connected cars aren’t obstructed by radio interference. Testing will be completed within one year of receiving production-ready devices, Foxx said in a blog post released at the time of the event.

Combined, these commitments will accelerate the introduction of V2V and vehicle-to-infrastructure systems, Foxx said. Vehicle-to-infrastructure, or V2I systems will allow automobiles to wirelessly communicate with roads and traffic signals. The regulatory framework will be designed to encourage innovations that increase traffic safety, Foxx added.

“The department wants to speed the nation toward an era when vehicle safety isn’t just about surviving crashes; it’s about avoiding them,” he said.

Global Automakers, a Washington D.C.-based industry group that includes Toyota, Nissan, Honda and Ferrari applauded the move. The group said it’s also working to solve the problem of growing demand by devices that want to use the unlicensed Wi-Fi spectrum currently dedicated to V2V communication. Global Automakers has partnered with DENSO International America, Inc. and Cisco Systems, Inc. to test a potential sharing approach that is compatible with V2V communications.

The exciting part about V2V—aside from the obvious one of avoiding collisions—is the potential for V2V and V2I to ease traffic congestion and make driving, or riding in an autonomous car, a more enjoyable experience.

Traffic congestion drains the U.S. economy of $87.2 billion every year with 4.2 billion hours and 2.8 billion gallons of fuel spent sitting in traffic, according to the DOT’s Intelligent Transportation Systems Joint Program Office.

When V2V tech is in enough cars and V2I in enough infrastructure like toll booths and signals at freeway ramps, a vast network is created. Cars will be able to give and receive data in real-time, allowing drivers to change their route. Less congested roads and highways means fewer emissions as well.

Despite the DOT’s pledge to speed up the process, don’t expect V2V technology to be as standard as a seatbelt for years.

Automakers are just introducing the technology and regulators must still navigate through numerous complex issues—including concerns about nonautomotive devices sharing the same spectrum dedicated to connected cars—before they can set basic standards.