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Tech | **On the Move**

BMW, Deutsche Telekom urge Germany to oppose Wi-Fi connected cars

Apr. 15, 2019 12:34 PM ET | About: Bayerische Motoren Werke A... (BMWYY) | By: Jason Aycock, SA News Editor

- Chief executives at Deutsche Telekom (DTEGY +0.5%) and BMW (BMWYY +0.6%) are pushing Germany to oppose an EU proposal that might set a standard for cor
- "We are convinced that mandating Wi-Fi technology will cause significant delay to the European rollout of car-to-car and car-to-infrastructure communication," write BI
- Germany says it's reviewing reservations raised by legal advisers before it takes a final position on the issue.
- But carmakers are lined up across from each other amid a pair of competing standards: the Wi-Fi-based ITS-G5 standard, which would give Volkswagen (VWAGY +0 V2X, which would favor BMW, Daimler (DMLRY -0.6%), Ford (F -1.9%) and PSA Group.
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Comments (25)

Tdot
This could explain the slight rift in the talks between Ford and Volkswagen over partnering in the AV-Mobility domain, if Ford is on the 5G side

15 Apr 2019, 06:32 PM

zarock
Cars should be designed so that they are not reliant on either system for basic things like not crashing, as wifi will occasionally fail, and could a or wifi coverage seems unlikely anytime in the near future (having 5G or wifi coverage across all the roads you might want to drive on, as oppo

Now having car to car communication to supplement other safety systems sounds good, but having it be the sole system simply provides one

15 Apr 2019, 05:44 PM

Bob London
I so agree. Looked at my cell network on down detector and there appeared to be a dozen or so reported outages in various places over 24

16 Apr 2019, 10:49 AM

Tdot
You seem to be missing the point that this 5G is car to car, not car to tower to tower to tower to woops to woops to tower to tower to tower t

www.caranddriver.com/...

ieeexplore.ieee.org/...

16 Apr 2019, 12:12 PM

Bob London
Thanks for links.
The IEEE link is one UE connected to another UE. Not the 30 or so simultaneous vehicle to vehicle connections probably required.
The 'car and driver' article mentions base stations will be required every quarter mile that are totally separate from the regular cell phone ce
It even mentions that Wi-fi base stations would be required along the roads.
There's a huge difference between a cell base station that can communicate between many UEs and the capability of a UE modem to com
As an aside, I've seen no information about how alerts from vehicles in front or behind are differentiated from each other in terms of alerts.
median are tempered/ignored.
I just don't see that a cheap 5G modem will be able to keep track of real time information from so many sources.

17 Apr 2019, 03:56 PM

Top Mix
I think this talk about the connection is all about the long run (15 years or more) .. the quality of connection would (and should) be something w start with

15 Apr 2019, 04:18 PM

huthutho
Standards are great 'cause there's so many to choose from...

and tax!

15 Apr 2019, 02:23 PM

ace41
Interesting that VW and Ford are on opposite sides of this issue and also considering a joint effort on, among other things, electric vehicles.

15 Apr 2019, 01:10 PM

ssrothell
Ford up until recently was on the wifi side of the fence. Mandating one over the other needs to be done to provide certainty, 5G is the bette
the wifi side.

15 Apr 2019, 04:25 PM

vooch
I thought Ford was always C-V2X which is arguably the better standard since it provides the most data

18 Apr 2019, 07:29 AM

Bob London
A car doing 80kph would travel over 22 metres in a second.
Would you trust either Wi-Fi or 5G for a safety critical situation?
Sometimes I think I'm the only person that has ever used wireless data.
Even if it works in city centres what about mountains, tunnels and international boundary's. When a mobile device handshakes between netwo
vehicle 20 metres ahead that has crossed the boundary one second before you.

15 Apr 2019, 01:04 PM

Chic N Pautpi
My grand-kids kids / gran-kids will love these cars.

Long Ford
(...about 75 years)

15 Apr 2019, 07:29 PM

vooch
Dude like its totally for C-V2X (meaning car to car) short range man

18 Apr 2019, 07:30 AM

Bob London
Cellular vehicle-to-X technology (C-V2X). The clue is in the C.

18 Apr 2019, 05:53 PM

vooch
Whoa - like the X means everything , like anything thats moving, including buses, bikes, streetcars, possibly even humans. That's radical

19 Apr 2019, 01:06 AM

Tdot
Actually "X" can also mean anything that is stationary and relevant to traffic, such as traffic control signals, speed limit signs, temporary lan

But the automakers will indeed need to set a standard for what is to be communicated between vehicles, and how, over the 5G network. Th
between the automakers and the regulatory agencies (DOT / NHTSA).

So for instance, observing and broadcasting instant traffic alerts and updates about road conditions would be of interest to the collective. A
to move into the express lane, is more of a local interest in starting an orderly negotiation process to make way. An emergency distress ale
create a priority path in traffic to safety for the afflicted vehicle, and to broadcast to the traffic collective and the authorities that there is a ve

That (and much more) is the sort of car-with-X communication that can be envisioned.

19 Apr 2019, 08:49 AM

Bob London

@Tdot
How will the position be communicated in V2V. I can't see that GPS is good enough to differentiate between the car behind that is braking a
The relative position of vehicles is important and I don't understand how this is being addressed.

19 Apr 2019, 09:26 AM

Tdot
But yes (sorry) I agree, GPS in and of itself is wholly insufficient with regards to lanekeeping and vehicle spacing, since it's accuracy is not
landmarks along the road can provide a sort of calibration to get vehicle positioning accuracy from several meters down to centimeters whe

19 Apr 2019, 12:33 PM

Tdot
It is about the capability of calibrating a presumptive GPS position with respect to a well known landmark, to reduce the +/- 4 meter (rms) e
of a sophisticated and accurate "situational awareness" in the AI system. Virtually every fixed road sign, tree, lamp post, etc., can be placed

Ford for instance uses this sort of system in maintaining the vehicle in the lane when the lane markers are obscured by snow, and such info
maintaining the "convoy".

19 Apr 2019, 12:41 PM

Bob London
I've just been looking at Galileo GPS and it gets down to about a metre accuracy. But system does not yet have the satellite redundancy re
Thank you for your help in understanding the size of the problem.
I've learnt a lot this Easter.

19 Apr 2019, 12:56 PM

Tdot
Well Remember - GPS accuracy (really uncertainty) is more about the physics of the transmitted signals than about the instrument itself. E
can throw off the calculations by meters.

The US government quotes about 4 meters rms, and about 8 meters with two-sigma (standard deviations) or 95% confidence. Some devic
3 meters with 95% certainty.

A device quoting a meter or less usually entails a lot of asterisks and footnotes full of complicated disclaimers and conditions, such as a sta
great many satellites with no obstructions or reflecting objects for a relatively lengthy period of time for iterating, calibrating, and cross-corre

19 Apr 2019, 02:40 PM

jsiracusejr
I don't know enough about either system but if I'm trusting my life in the hands of an automated vehicle it doesn't seem that Wi-Fi is adequate
from Wi-Fi and now you want to trust your vehicle operation with it? NOT!!!

15 Apr 2019, 12:59 PM

Lunar Thief
beta vs vhs, DVD vs hddvd all over again. hopefully the best choice for the user will win out this time...

15 Apr 2019, 12:48 PM

dan87951
Oppose WI-FI connected cars? Why? Oh... I see what they're doing, they want to charge consumers for bandwidth when their cars update at b

15 Apr 2019, 12:45 PM

Lunar Thief
While I agree this can be a setup for charging for upgrades, I feel 5g lends itself to this more so the basic idea is car to car communication.
communicate issues before you can react. A car ahead of you slams on its brakes your car slows before you can react.

15 Apr 2019, 02:06 PM