
5.9 GHz DSRC in the Next Generation Of Mobile Wireless Networks

DSRC – Ready to play its part!

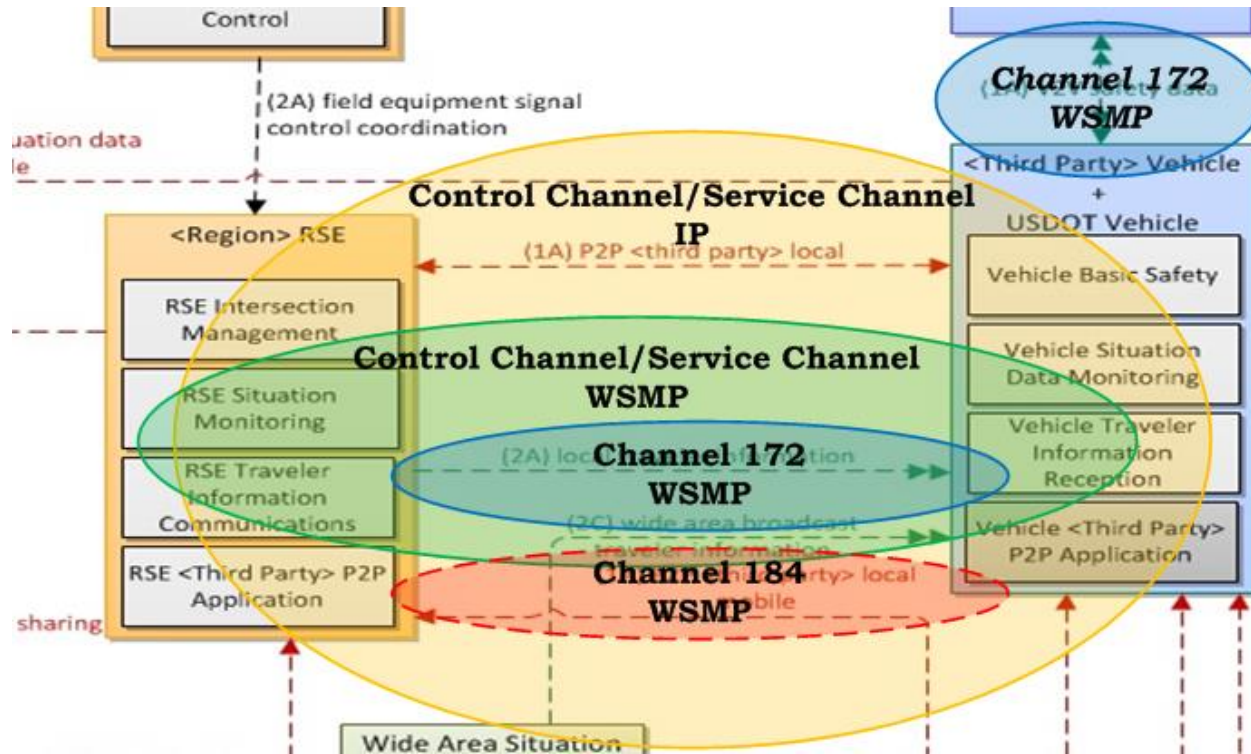
December, 2015

DSRC – a Key Part of Communications

- Large-scale pilots are underway that will exercise the full capability of DSRC
- Arrived at a consensus of interpretation of standards for the next generation of installations
- Production programs are underway

DSRC is ready to be part of the next Generation

DSRC in the Reference Architecture



DSRC has 4 parts

- **Channel 172** WSMP for time critical, very efficient data sharing for crash avoidance and efficiency improvement
- **Channel 184** WSMP for Public Service use
- Control Channel/Service Channel (**Channels 174 – 182**) for other WSMP
- Control Channel/Service Channel (**Channels 174 – 182**) for IP transport

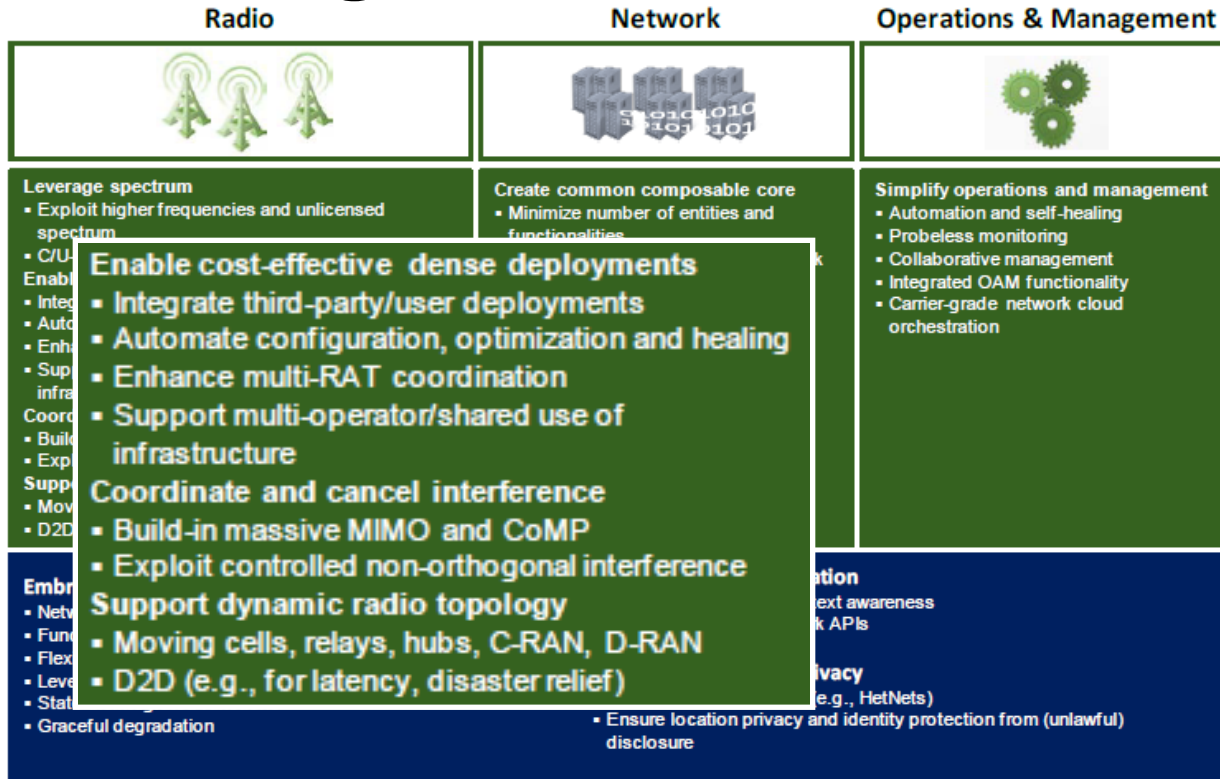
Maturity levels

4 levels of maturity in the use of DSRC:

1. DSRC on Channel 172 for crash avoidance
 - Safety Pilot/Model Deployment
2. DSRC on Channel 172 for intersection safety and efficiency improvement
3. DSRC on all channels for a variety of message-based uses
 - Connected Vehicle Pilots
4. DSRC on all channels for message-based and IP transport-based uses.
 - Smarts City Challenge project

No one entity has to build all of the parts. Different parties can contribute parts of the whole.

Looking Forward to the Next Generation



- Better coordination of Radio Access Technologies
- Opportunity of preserve the capabilities of DSRC in a portfolio of wireless services
- DSRC could drop into 5G to cover significant vehicle-oriented use case needs

Figure 7: 5G design principles

DOT Smart City Challenge



- Designed to help cities begin to address the challenges of rapid population increases and rapidly growing demands on their transportation infrastructure
- Up to \$40M
- <https://www.transportation.gov/smartcity/>
- <https://youtu.be/14adE8pVakI>

“Make no little plans. They have no magic to stir men’s blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing insistency.”

- Daniel Burnham

“I have always believed in planning big, and I have always discovered after the fact that, if anything, we didn’t plan big enough.

- Alfred Sloan

Back up slides

Adjacent Channels

