What is Clear Roads?

- 26 current members: CA, CO, IA, ID, IL, KS, MA, ME, MI, MO, MN, MT, ND, NE, NH, NY, OH, PA, RI, UT, VA, VT, WA, WI, WV, WY

- Primary activities include:
  - Evaluating winter maintenance materials, equipment and methods.
  - Developing specifications and recommendations.
  - Studying and promoting innovative techniques and technologies.
  - Supporting technology transfer by developing practical field guides and training curriculum to promote the results of research projects.
In-cab electronics used on DOT vehicles are often provided by different vendors.

Each vendor has their own proprietary communication protocols and data formats.

Costly and time intensive to integrate the different systems into one data stream.
The goal was to develop specifications that would support a “plug and play” approach to integrating electronic devices and sensors on plow trucks.

Clear Roads developed an initial specification and then engaged the vendor community to get their support and input.
The Approach

Specify a universal bi-directional communications protocol for in-cab electronics
Examples of in-cab electronics include spread controllers, temperature sensors, plow up/down indicators, etc.

The protocol will be configurable and dynamic
To provide the end user with the maximum available data at the lowest cost

Wherever possible it will be backwards compatible to support legacy equipment
Protocol Development Timeline

A collaborative group of spreader and AVL vendors are currently developing the protocol.

It will be posted publicly for review by all interested stakeholders when it’s fully drafted.

Testing and validation will take place in the 2013-2014 winter season at an alpha site.

Revisions will be made based on alpha testing.

Beta testing will take place in the 2014-2015 winter season.

The protocol should be final by 2015.
Expected Results

A standard protocol that each state can specify in procurement to facilitate a “plug and play” approach to sharing operational data from electronic devices on modern winter maintenance vehicles.
For more information:

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