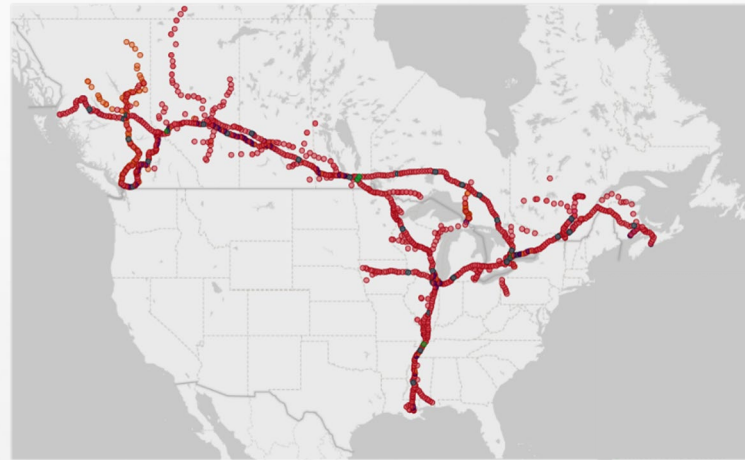


Wayside Detector Technology

Leveraging technology to drive incident prevention, improving safety performance. Also drives improvement in Mechanical efficiency and network fluidity.

Monitoring locomotive and railcar mechanical health to proactively detect real-time issues on active trains to enable preventative action.

- Multiple layers of technology and lines of defense to help prevent incidents
- New technologies provide early identification of difficult-to-visually-inspect components
- Improves Mechanical employee productivity by providing advanced notification of components requiring repair prior to trains arriving in yards
- Improves network fluidity by decreasing frequency of train stoppages caused by component failure



Multiple detector technologies across CN's Network:

Dense network of advanced technology, detecting for:

- Hot bearing
- Acoustic bearing
- Wheel impact load
- Wheel profile
- Dragging equipment
- High/Wide Load
- High Water
- High Wind
- Landslide



Hot Bearing Detector:

Monitors wheel bearing temperature on passing rolling stock, and immediately alerts train crews of issues that require corrective action.



Acoustic Bearing Detector:

Assesses wheel bearing sound signature to identify compromised components well in advance of a heat-generating failure.

CN has an extensive wayside detection network, utilizing over 24 million data points per day across 2,800+ detectors

