

# PTC Update, Issues, Risks and Challenges

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2018 Rail Conference

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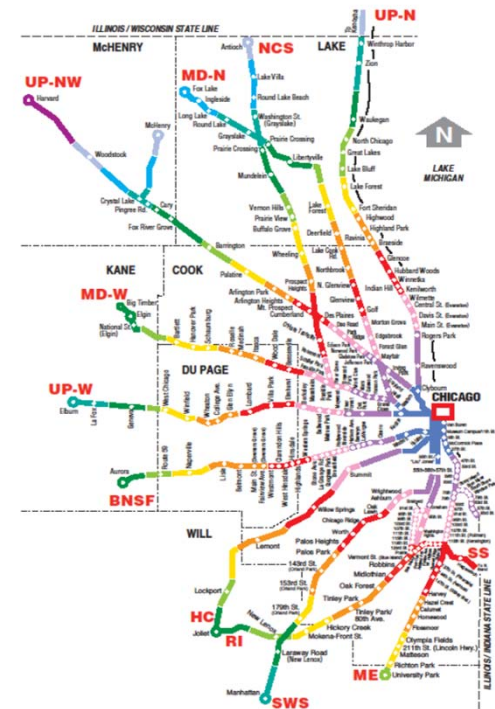
# Metra Overview

- 11 rail lines
- 4 Metra owned, 4 PSA (BNSF & UP), 3 trackage rights (CN & NS)
- 487 route miles
- 686 weekday trains
- 433 weekend trains
- 1,119 total weekly trains



# Metra Overview

- 290,000 weekday passenger trips
- 78.8 Million annual passenger trips
- 3<sup>rd</sup> largest commuter railroad in the U.S.
- 1,300 - 1,400 trains operate daily in the Chicago Terminal District



## PTC by the Numbers

Locomotive / Cab Cars	528
Track Segments	9
Wayside Locations	227
Base Radio Locations	8
Yards	18
PTC Employees ( to be trained)	1,801
Route Miles	217.5

# PTC Installations to Date

	Installed	Required	Percentage
Locomotive / Cab Cars Hardware	474	528	90%
Locomotive / Cab Cars Software	95	528	18%
Track Segments with Hardware	7	9	78%
Track Segment with Software	4	9	44%
Wayside Interface Units	325	335	97%
Wayside Radios	215	219	98%
Communication Towers	222	227	98%
Base Radio Locations	8	8	100%
Yard Wi-Fi	18	18	100%
PTC Employees (to be trained)	1,215	1,801	67%

# PTC Milestones

Implementation Plan First Submitted	July 2010
System Integrator Contract ( Parsons)	August 2015
Revised Implementation Plan	January 2016
Spectrum Obtained	June 2016
Test Request Submitted	July 2016
Test Lab Operational	March 2017
Safety Plan at 60%	December 2017
Federation Testing	March 2017
Back Office Installed	December 2017
Back Office Operational	<i>February 2018</i>
Wabtec CAD System Operational	<i>June 2018</i>
Help Desk Implementation	<i>October 2018</i>

# Extension Requirements

In order to request an extension for full PTC Implementation, the following requirements must be complete before December 31, 2018.

On Board Equipment Installation Complete	<b><i>October 2018</i></b>
Wayside Equipment Installation Complete	<b><i>September 2018</i></b>
Training ( Rock Island Segment)	<b><i>September 2018</i></b>
Spectrum Acquisition	<b><i>Complete</i></b>
RSD ( Rock Island Segment)	<b><i>September 2018</i></b>



# Revenue Service Demonstration

RID / Joliet	<i>September 2018</i>
RID / Beverly	<i>December 2018</i>
RID / SWS	<i>February 2019</i>
MED / UP	<i>August 2019</i>
MED / BI	<i>September 2019</i>
MED / SC	<i>October 2019</i>
MDW / Elgin	<i>December 2019</i>
MDN / C&M	<i>March 2020</i>
MDN / Fox Lake	<i>May 2020</i>

# Challenges /Issues/Risks

- Funding
- Interoperability
- Personnel
- Training
- System Maturity
- Schedule Adjustments
- Spare Ratio
- Testing
- ITC Standards
- Radio Spectrum
- Operating Costs

**Questions ?**

