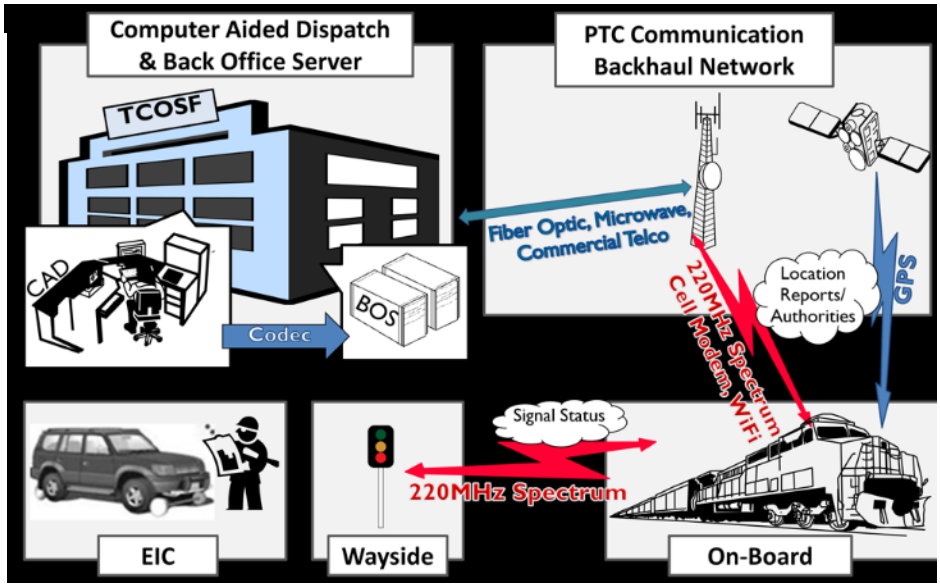
Metrolink…Southern California's Commute of Choice

Positive Train Control Implementation

Positive Train Control (PTC) is a predictive collision avoidance technology that can stop a train before an accident occurs. PTC implementation is mandated for all rail providers by 2015 per H.R. 2095 (The Rail Safety Improvement Act). Metrolink is on track to implement the technology in advance of the federal mandate. Metrolink is the first commuter rail agency to install PTC. This effort requires immense technological innovation and an unprecedented level of interoperability within the railroad industry.



Background:
Metrolink's PTC program calls for installing a back-office system (BOS), replacing the current computer-aided dispatch (CAD) system, installing on-board PTC equipment on 57 cab cars and 52 locomotives, installing stop enforcement systems at 476 wayside signals, and implementing a six-county specialized communication network to link the wayside signals, trains and centralized dispatch office. The Metrolink System operates seven routes providing 144 weekday commuter trains on more than 388 route miles through six counties in Southern California and carrying over 40,000 average weekday riders. The Metrolink Operations Center (MOC) is the dispatching hub for all rail providers in Southern California, including other passenger and freight carriers, making it one of the nation's busiest and most complex rail networks.

PTC Budget and Funding:
Installation of a PTC system on the 216-mile publicly-owned portion of the Metrolink rail network is estimated at $201.6 million. The identified funding sources are 80 percent state/local and 20 percent federal. SCRRA has secured local, state and federal funding to cover the $201.6 million budget, however should unforeseen issues arise, additional funds may be required to pay for unexpected project costs.

Challenges:
Metrolink and other rail providers are addressing complex implementation issues such as radio interoperability and functionality between all rail systems. The complexity of the shared use corridors with freight and other passenger railroads in an urban environment and the implementation and testing of emerging technology also pose significant challenges. Specific challenges we are currently facing include:

- Spectrum Acquisition – The planned purchase of 220MHz spectrum which began in 2009 was challenged by a third party followed by bankruptcy of the holding firm. A favorable outcome was reached in the bankruptcy court, though SCRRA legal representatives must overcome challenges associated with both bankruptcy court and then the FCC licensing process. An understanding has been reached with PTC 220 LLC to temporarily lease spectrum for testing while long-term solutions are developed.

- Technology Availability – PTC requires the innovation of special radios, a new computer aided dispatch (CAD) system and a back office server (BOS) to support interoperability among railroads. These technologies are not readily available "off the shelf" but are being developed and innovated specifically for PTC. Software and hardware development has encountered challenges resulting in delays in delivery; however they are being addressed with interim solutions and collaboration with the Class 1/Freight railroads.

Challenges (con't)

- Resource Management – PTC is a highly complex technology. Agencies implementing PTC are finding a shortage in qualified technical workforce. We are concerned that FRA may not have the resources to meet the demands of approving PTC implementation on a national level. We need to provide this agency with the tools and resources to proceed in a timely manner in their approval process.

Next Steps:
Metrolink is aggressively working toward implementation of PTC in advance of the 2015 federal mandate. The agency is developing work around strategies as we face significant industry challenges. Metrolink is working with our federal partners to address the industry challenges and to develop a national implementation plan to ensure that PTC is successfully implemented.

Chronology of PTC Implementation

September 2008	SCRRA initiates pursuit of funding for developing, implementing, and operating a positive train control system
October 2008	The Rail Safety and Improvement Act of 2008 signed into law, requiring installation of Positive Train Control Systems by 2015.
December 2009	SCRRA Board Approval of Competitive Negotiation Process and Evaluation Criteria.
January 2010	The Federal Railroad Administration (FRA) issues its final rule requiring railroads to install Positive Train Control technology.
March 2010	SCRRA issues Request for Proposal (RFP) for the Vendor/Integrator component of the project.
April 2010	SCRRA submits PTC Implementation Plan (PTCIP) to FRA, conducts Pre-Proposal Meeting, and issues Addenda to bidders.
May 2010	FRA conditionally approves SCRRA PTC IP
June 2010	Vendor/Integrator contractor(s) submit proposals; SCRRA evaluation begins.
July 2010	Peer Review Session held. Negotiations with V/I proposer begin.
October 2010	Notice To Proceed issued to Vendor/Integrator.
February 2011	PTC Development Plan (PTCDP) Variance Type Approval submitted to FRA.
July 2011	Began On-Board Pilot Installations.
August 2011	Draft PTC Safety Plan submitted to the FRA for informal review.
October 2011	Issue NTP to Communications Backhaul contractor.
February 2012	ETMS VII brake testing conducted on the BNSF San Bernardino Subdivision.

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