

# Challenges in Interagency Transit Services Coordination

August 26, 2014  
National Rural ITS Conference



U.S. Department of Transportation  
Federal Transit Administration

# Agenda

- **The VTCLI Experience** – Chris Zeilinger, CTAA
- **Transit Data Interoperability** – Larry Harman, Bridgewater State University
- **One-Click One-Call Veterans Center** – Gary Shepard, Berkshire Regional Transit Authority

# TECHNOLOGY CHALLENGES IN INTERAGENCY TRANSIT SERVICES COORDINATION: THE VTCLI EXPERIENCE

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National Rural ITS Conference  
Tuesday August 26, 2014

*Chris Zeilinger*  
*Assistant Director*  
*Community Transportation Association of America*



# Introductory Background

- What is the Community Transportation Association of America (CTAA)?
- Technology among rural, small-urban and specialized transportation providers: a 30-second refresher course
- CTAA's role as provider of technical assistance, in general and with regard to the Veterans Transportation and Community Living Initiative (VTCLI)

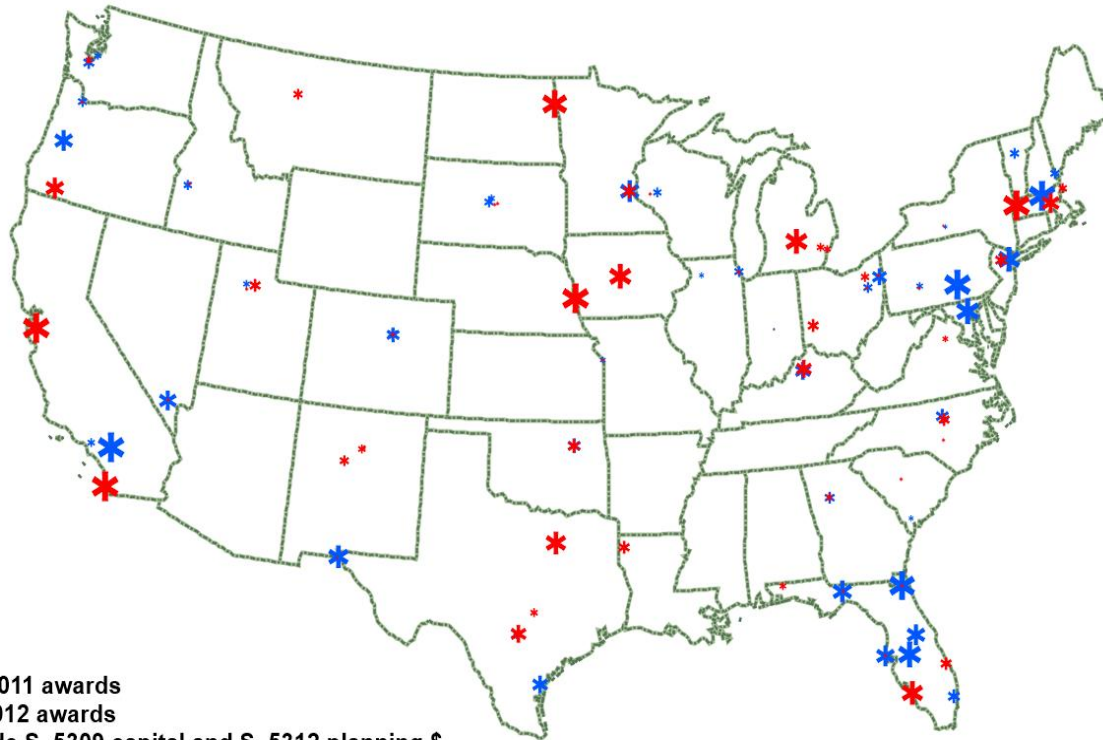
# VTCLI Background

*To recap what was presented earlier today...*

- FTA has awarded approximately \$64 million in competitive capital and research grants for the purpose of helping veterans, military families and others connect to jobs and services in their communities through improved access to local transportation services.
- 86 VTCLI projects across the US, in 38 states, 2 territories
- Two rounds of Section 5309 capital grants, awarded in 2011 and 2012, plus one round of Section 5312 research grants for outreach and marketing initiatives, awarded in 2012.
- Section 5309 grants range from \$31,000 to \$2.0 million; Section 5312 grants range from \$6000 to \$50,000.

# VTCLI Project Locations

Distribution of VTCLI Awards in 2011 and 2012 for Continental United States Scaled by Size of Award

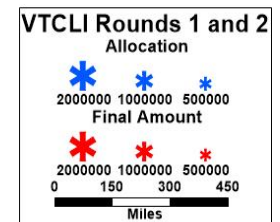


**Notes:**

1. Blue symbols are 2011 awards
2. Red symbols are 2012 awards
3. 2012 awards include S. 5309 capital and S. 5312 planning \$

GeoGraphics Laboratory, Bridgewater State University August 2014

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Note: Map shows CONUS only. There also are small awards in Alaska and Hawaii, and large awards in Guam and Northern Mariana Islands

# VTCLI: Diverse Grantees

**VTCLI projects are being implemented by a diverse array of entities.**

- Urban Transit Agencies (36)
- COGs, Planning Agencies, etc. (10)
- Local Human Services Transportation Providers (10)
- Rural Transit Agencies (9)
- “Non-traditional” Partners (8)
- State DOTs (7)
- Local Government (6)

*[note: these are subjective categorizations of end recipients]*

# VTCLI: Diverse Technologies

Strategies being employed by VTCLI grantees include:

- Multi-agency trip planning
- On-line trip scheduling
- Real-time traveler information
- Technology add-ons to existing call centers
- Integration with 211/511, both local and statewide
- On-vehicle technology
- Electronic fare system upgrades
- Smartphone “apps”
- Construction of new one-call/one-click facilities



# VTCLI Technology Challenges

Despite focus on established, off-the-shelf, technological approaches, VTCLI grantees have had to address a host of challenges, including:

- Patent assertion entities' claims on real-time information systems
- Accessibility of web and phone interfaces
- Synchronizing procurements with grantee's other technology projects, whether for specs or for sole-source
- Designing to accommodate multiple transportation modalities and providers on one platform or interface
- Privacy concerns, e.g., with VA's electronic health records
- Interfacing multiple providers' fare systems and technologies with smartcard-based fare payment systems
- Data interoperability across multiple demand-response trip reservation, scheduling and dispatching platforms

# VTCLI Offshoot Products

**Several technical assistance products have been developed, which will have lasting value beyond VTCLI**

- “Guide to Serving Your Military Community,” housed on FTA website
- “Route To Community Engagement” on-line toolkit, located on Easter Seals Project ACTION website
- “One-Call Operating Guide,” housed on One-Call Toolkit website
- Technical briefs on data interoperability, patent assertion issues, and financing one-call operations, housed on FTA and CTAA websites

# VTCLI: Enduring Benefits

**Even after VTCLI projects and their technical assistance have concluded, there are lasting benefits that will accrue to FTA and the transit network.**

- There will be demonstrated, documented successes of veterans and military stakeholder participation for transit agencies and planners to follow
- More than a dozen technical assistance documents, toolkits and other resources have been developed that will be available and useful to other transit agencies and their partners
- On account of the needs of many VTCLI grantees, an ongoing effort concerning interoperability and openness of data has been launched that is leading to greater technological efficiency in the provision of demand-response public transportation



# For Questions, More Information

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# TRANSIT DATA INTEROPERABILITY

AUGUST 26, 2014  
NATIONAL RURAL ITS CONFERENCE

Larry Harman, Co-Director

GeoGraphics Laboratory, Bridgewater State University

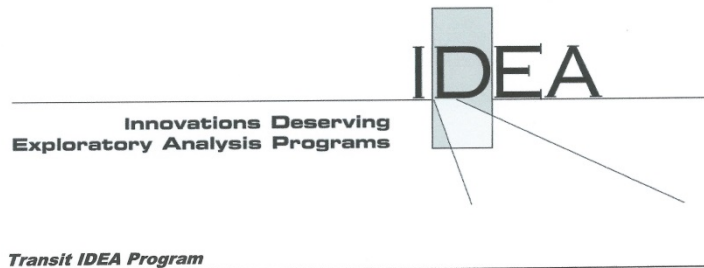


FEDERAL TRANSIT ADMINISTRATION

# Federal Transit Administration – Bridgewater State University Cooperative Agreement to support data interoperability in MSAA projects

- Approach to problem
  - Historical analysis of public transportation initiatives
  - Review current projects supporting MSAA goals
  - Outreach to emerging public and private partnerships
  - Consensus building for data interoperability

# Literature Review Results



*Developing Regional Mobility Management Centers*

Final Report for  
Transit IDEA Project 50

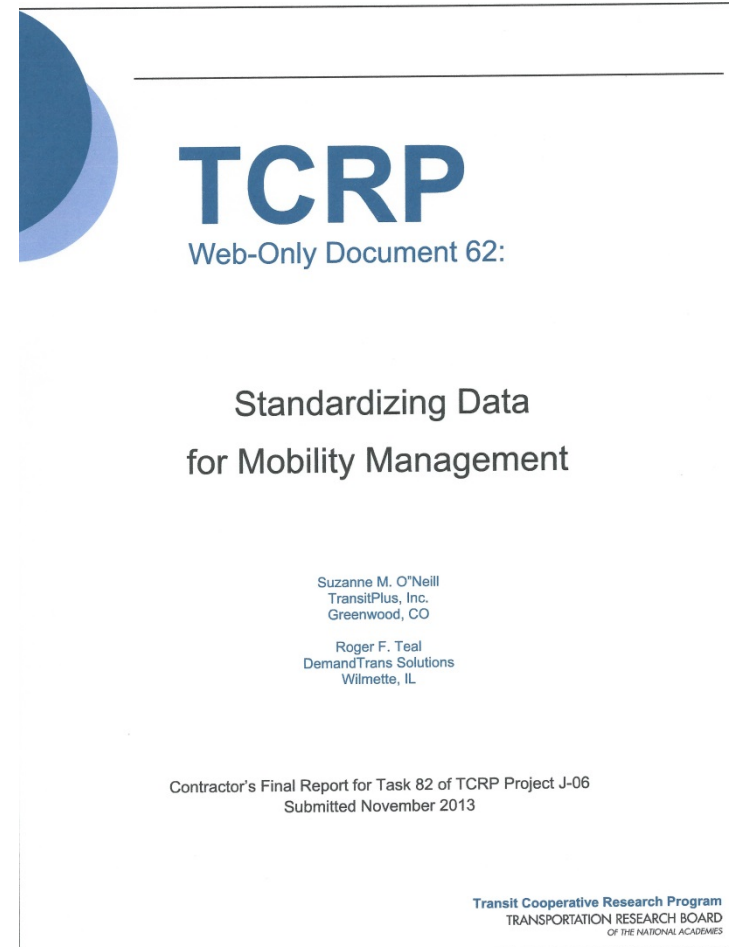
Prepared by:  
Jon E. Burkhardt  
WESTAT  
Rockville, Maryland

**October 2012**

TRANSPORTATION RESEARCH BOARD  
OF THE NATIONAL ACADEMIES

**FTA** RESEARCH

FEDERAL TRANSIT ADMINISTRATION



# Current Related Projects

- Bridgewater State Mobility Management Technology Project Phase III – CCRTA
- VTCLI Technology Cooperative Initiatives (TechCOOP)
  - Portland, OR, Ride Connection – VA data exchange
  - Atlanta Regional Commission
  - VTCLI New England Open Data Exchange
    - Berkshire RTA, MART, MetroWest RTA, Cape Ann TA, and Cape Cod RTA, Vtrans, COAST



# MSAA Outreach Initiative

- Outreach to public agencies and private vendors through national conferences.
- Webinars to present findings and initiate discussions leading to consensus on data standards that promote interoperability for mobility services (i.e. public transportation and human services transportation).
- Meeting of public and private stakeholders.

# Outreach Through National Conferences - 2014

- TRB Transit GIS Conference, Washington, DC, October 2013
- AASHTO National GIS-T Conference, Burlington, VT, May 2014
- CTAA EXPO 2014, St. Paul, MN, June 2014
- Rural ITS Conference, Branson, MO, August 2014
- MARTA Annual Conference, Berkshire County, Sept 16, 2014 – outreach to New England States for IOP consensus building

# VTCLI-MSAA Interoperability (IOP) Initiative in FTA Region One

- FTA TRO1 VTCLI Technical Assistance Initiative supporting VTCLI New England Open Data Exchange (ODE).
- FTA TRO1 is joined by MassDOT Mobility Manager in monitoring VTCLI projects
- Berkshire RTA VTCLI and BSU/GL MSAA projects create prototype for simple ODE using standard reports and .csv output with VA Veterans Transportation Services
- BSU/GL provides secure data hub and software as a service SaaS design to prototype interoperability
- *BRTA initiative outreach to MART, MwRTA, and CATA for VTCLI DXE to/from VA through MA VTCLI Call Ctrs*

# VTCLI NE DXE: *GTFS-DRT ??*

- TCRP J06/Task 82 Core Data Elements for “Transactions” (ref TCRP Web Doc 62 p.44)
  - Trip Data
  - Passenger Data
  - Organization Data
  - Financial Data
  - Vehicle Data
- Export from Vendor A software as a .csv report
- Import into Vendor B software as a .csv intake file

# Proposed Webinars Fall- Winter 2014 -2015

- Historical precedents
  - ADART VNTSC Report
  - Cape Cod ITS Feasibility Study
  - TCRP IDEA 50 Report
  - TCRP Task J-06/Task 82 Report
- VTCLI New England Data Exchange (DXE)
  - Lessons Learned
- VTCLI Portland (OR) Data Exchange
  - Lessons Learned

## Proposed Webinars Spring 2015

- MSAA Data Interoperability – Lessons Learned
  - VTCLI New England Open Data Exchange
  - VTCLI Northwest Open Data Exchange
  - Atlanta Regional Commission Open Data Exchange
- MSAA Data Interoperability Interim Report

# MSAA Stakeholders Meeting

- CTAA TechCOOP5 – Final Day of CTAA EXPO 2015, Tampa, FL, June 2015
  - Public sector panel
  - Private sector panel
  - Consensus building exercise
  - Consensus Results – (video recorded)

# MSAA Interoperability Final Report

- Draft Final Report Published -- Summer 2015.
- [Possible Draft HST Interoperability Documentary Video – Fall 2015]
- Revisions completed – December 2015.



# Contact Information

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# Berkshire Regional Transit Authority

**NRITS and VTCLI  
One-Call One-Click Veterans  
Center**

**Gary Shepard  
BRTA Administrator**



- ☒ QFTs, Fixed Route Service
- ☐ QFTs, Fixed Route Service Area
- ☐ QFTs, Paratransit Service Area



The map and underlying the National Regional Planning Commission was a desire to provide planning assistance only. The map did not set out a blueprint for development, equity, and transportation patterns. However, the 1971-1973, as the transportation map, have inspired articles of the day.

# Berkshire County Population

(Provided by U.S. Department of Commerce)

	Berkshire County	Massachusetts
Population, 2010	131,219	6,547,629
Persons under 5 years (%), 2012	4.4%	5.5%
Persons under 18 years (%), 2012	18.7%	21.1%
Persons 65 years and over (%), 2012	19.7%	14.4%
Veterans, 2007-2011	11,153	412,617
Mean travel time to work (minutes), workers age 16+, 2007-2011	20.1	27.5

# Human Service Transportation

Vendor	Services/Program
County Ambulance	Paratransit Mass Health Early Intervention
County Rainbow Taxi	MRC Mass Health DDS and DayHab
BCAC	DDS and DayHab
Tunnel City Taxi	Mass Health MRC
Taxico	Mass Health

# JOSEPH SCELSI INTERMODAL TRANSPORTATION CENTER







# Route 7



## Next Bus?



Stop & Shop



Paresky Center



Williams Inn



Berkshire Medical Center

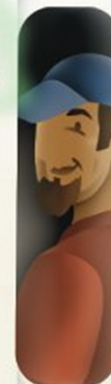


Intermodal Center



**Call/ Tell** Several stops along Route 7 feature **call/tell** capability. Call 413.629.2900 fifteen minutes prior to the next scheduled bus and catch a ride. Or, once you're on the bus, tell the driver where you need to go.

# CharlieCard

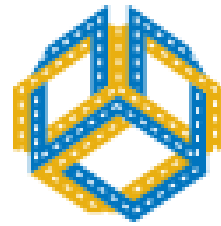


Massachusetts Bay Transportation Authority

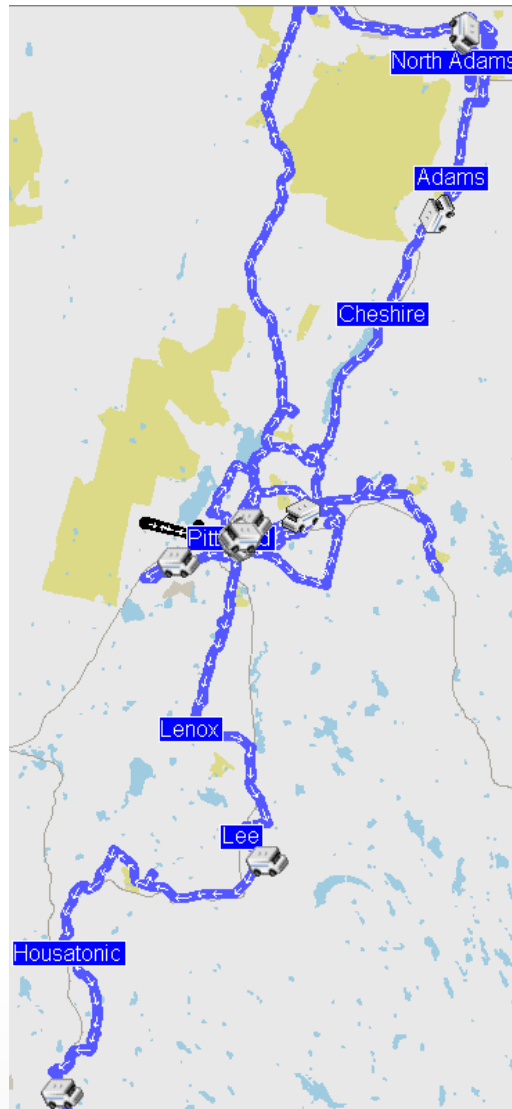


Massachusetts Bay Transportation Authority





RouteMatch  
Software™



# SOLDIER ON







# Executive Order 13330 – Human Service Transportation Coordination



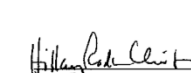
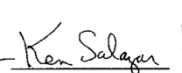
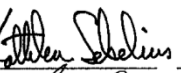
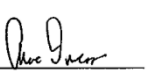
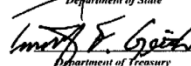
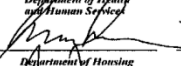
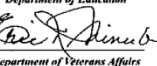
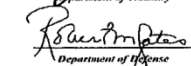
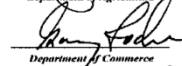
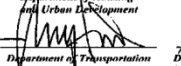





## STATEMENT OF SUPPORT

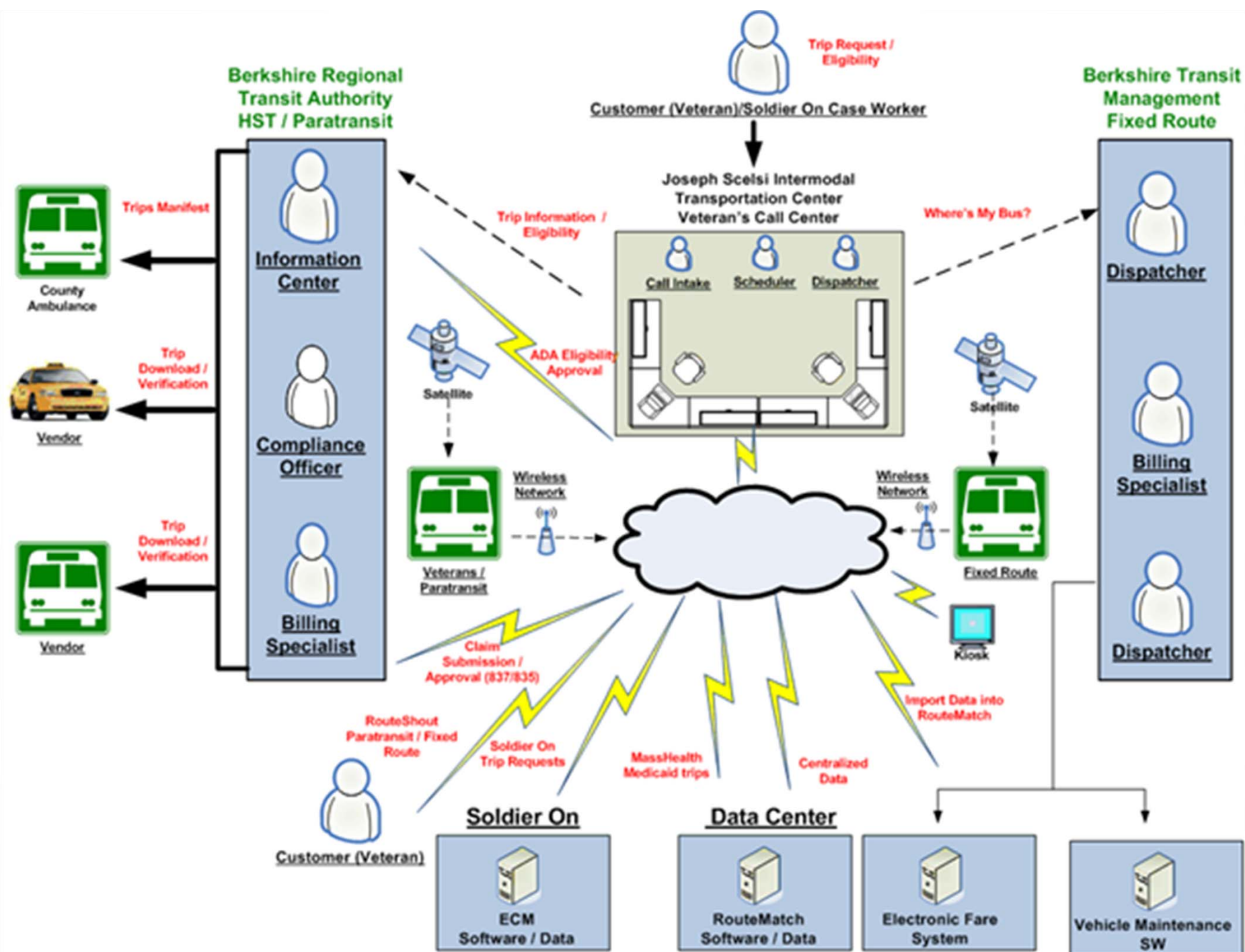
We recognize the tremendous service to our Nation made by the men and women of the Armed Services, our Veterans, and their families.

We commit to making the well-being of our military families one of our highest priorities and to improving their access to services and support.

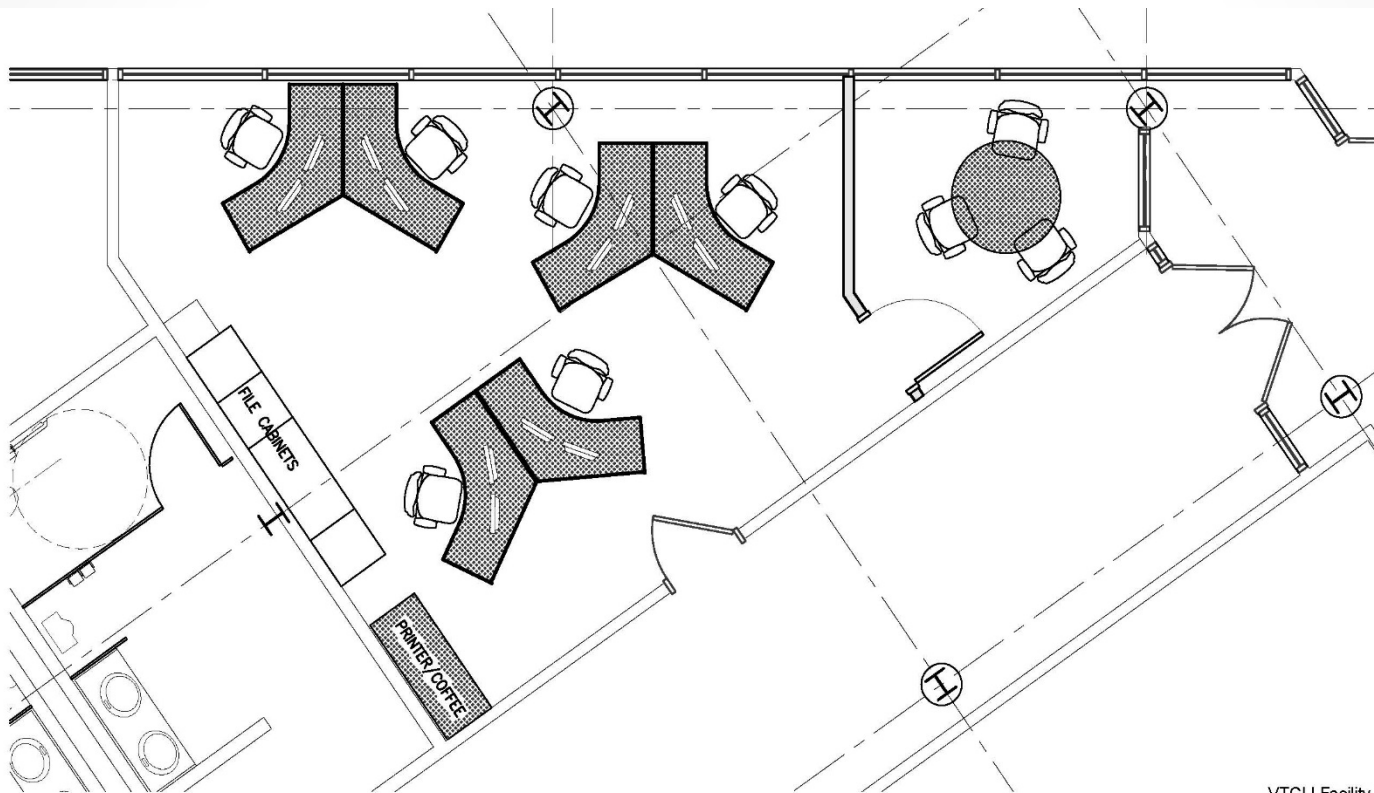
We will ensure that this priority is communicated aggressively across our organizations, receives the necessary resources, and is assessed and strengthened going forward.

Our commitment is enduring; not just for today's military families, but for future generations.

 Department of State	 Department of the Interior	 Department of Health and Human Services	 Department of Education
 Department of Treasury	 Department of Agriculture	 Department of Housing and Urban Development	 Department of Veterans Affairs
 Department of Defense	 Department of Commerce	 Department of Transportation	 Department of Homeland Security
 Department of Justice	 Department of Labor	 Department of Energy	 Environmental Protection Agency



# Proposed Facility Layout



VTCLI Facility Layout

# Transportation Coordination: ROI

- USDOT ROI study conducted on MSAA (precursor to VTCLI)
- Study proves substantial cost savings and ROI when government funded transportation programs are coordinated
- RouteMatch technology is platform for this study
- 44% vehicle reduction with 10% productivity improvement.

Performance Measures	Scenario #1 Non-Coordination (Non Coordinated)	Scenario #2 Semi-Coordination (Medicaid and Aging Separated)	Scenario #3 Full Coordination (All Trips)	% Change from Scenario 1 to Scenario 3	% Change from Scenario 2 to Scenario 3
Total Vehicle Hours (hrs.)	554	609	499	-11%	-22%
Total Revenue Hours (hrs.)	494	538	454	-9%	-18%
Total Vehicle Distance (mi.)	12,658	13,227	11,939	-6%	-11%
Total Revenue Distance (mi.)	11,939	10,432	10,257	-16%	-2%
# of Vehicles Used	60	69	48	-25%	-44%
Passenger per Revenue Hour	1.89	1.74	1.92	+2%	+9%

# Veteran Focus

## SOLUTIONS FOR STATE AND LOCAL GOVERNMENT GOVERNMENT TECHNOLOGY

### GOVERNMENT TECHNOLOGY: STATE & LOCAL GOVERNMENT NEWS ARTICLES

#### **Tech and Homeless Vets to Improve County Transportation**

*The Berkshire Regional Transit Authority in Massachusetts is partnering with a nonprofit organization to put homeless veterans to work in an intermodal transportation center.*

BY BRIAN HEATON ([HTTP://WWW.GOVTECH.COM/AUTHORS/BRIAN-HEATON.HTML](http://www.govtech.com/authors/brian-heaton.html)) / NOVEMBER 1, 2013



ROUTEMATCH



# Closing

Challenges and  
Opportunities

ITS/VTCLI

Moving Forward



Federal Transit  
Administration  
[www.fta.dot.gov](http://www.fta.dot.gov)