APPENDIX

Meetings

Summits

NIA Compliance

FHWA: Off-Model Air Quality Analysis – A Compendium of Practice – August 1999

Turbo Architecture Output

Metrolina Region Sausage Diagram

Metrolina Turbo Architecture Interconnect Diagram

Metrolina Turbo Architecture Flow Diagram

Metrolina Inventory to Market Package Comparison

Metrolina Market Packages Report

Metrolina Relevant Standards Activities

Metrolina Stakeholders Report

Metrolina Regional Architecture (Sample)

- Complete architecture is 767 pages long and included in a separate appendix.

ITS Strategic Deployment Plan

Metrolina Region
Consensus Building Meeting
June 9, 1999, 10:00 AM
MEETING SUMMARY

Attending:

Name	Agency	Phone	Fax	Email
Charles Abel	Mecklenburg-Union MPO	704-336-3945	704-336-4400	trcwa@mail.charmeck.nc.us
Fred Burchett	Kimley-Horn and Associates	919-677-2085	919-677-2050	fburchett@kimley-horn.com
Roberto Canales	NCDOT- Const. & Maint.	919-715-5662	919-715-2656	rcanales@dot.state.nc.us
Scott Cole	NCDOT- Division 10	704-342-6814	704-342-6967	scole@dot.state.nc.us
Robert Cook	Gaston MPO	704-866-6980	704-864-9732	robertc@cityofgastonia.com
Jon Downing	Mecklenburg-Union MPO	704-336-3945	704-336-4400	trjkd@mail.charmeck.nc.us
Mark Dunzo	Kimley-Horn and Associates	919-677-2075	919-677-2050	mdunzo@kimley-horn.com
Bill Finger	Charlotte DOT	704-336-3900	704-336-4400	trwbf@mail.charmeck.nc.us
Kenn Fink	Kimley-Horn and Associates	919-677-2085	919-677-2050	kfink@kimley-horn.com
Terry Hopkins	NCDOT- Cong. Mgmt	919-250-4151	919-250-4195	thopkins@dot.state.nc.us
Ann Lorscheider	NCDOT- Cong. Mgmt	919-250-4151	919-250-4195	alorscheider@dot.state.nc.us
Tom Parker	NCDOT-TMS	919-733-1506	919-715-0955	tparker@dot.state.nc.us
Benton Payne	NCDOT - Division 10	704-982-0101	704-982-3146	bpayne@dot.state.nc.us
Chris Spencer	NCDOT - Cong. Mgmt	919-250-4151	919-250-4195	cspencer@dot.state.nc.us
David Snyder	FHWA	919-856-4354	919-856-4353	dsnyder@fhwa.dot.state.nc.us

Distribution:

Name	Agency	Phone	Fax	Email
Greg Fuller	NCDOT - TMS	919-733-8021	919-715-0955	gfuller@dot.state.nc.us
Tim Gibbs	Mecklenburg-Union MPO	704-336-3917		pctdg@mail.charmeck.nc.us
Doug Gillis	Charlotte DOT			trrdg@mail.charmeck.nc.us
Jim Humphreys	Charlotte DOT			trpbb@mail.charmeck.nc.us
Sarah LaBelle	Cabarrus-South Rowan MPO	704-789-2520	704-786-4521	labelles@ci.concord.nc.us

The ITS Strategic Deployment Plan consensus building meeting for the Metrolina Region was commenced at approximately 10:00 AM at the CARAT Operations Center in Charlotte, North Carolina. Following is a summary of the proceedings of this meeting.

Benton Payne welcomed the participants, asking participants to introduce themselves, and gave a brief statement on ITS.

Fred Burchett, Ann Lorscheider, Mark Dunzo, Kenn Fink, and Roberto Canales gave a fifteen-minute presentation covering the following topics:

Introduction of strategic plan deployment process and meeting purpose
Review of ITS strategic planning in the region to date

Metrolina Region
Consensus Building Meeting
June 9, 1999, 10:00 AM
MEETING SUMMARY

Brief review ITS National Architecture
Brief review of ITS
Description of Strategic Plan development and deployment process
Discussion of purpose and use of plan once completed
Proposed deployment plan schedule

Following the presentation, a package was handed out to participants which included reproductions of the slides used in the presentation, a list of potential transportation stakeholders compiled from databases created during other public input activities, a paper written by Dr. Christina Johnson and Shelley Rowe of the FHWA discussing ITS titled "Intelligent Transportation Systems: The Role of Architecture, " and a proposed agenda for a transportation stakeholder meeting to discuss ITS deployment in the region.

At this point, Fred Burchett repeated to the participants that the main purpose of the consensus building meeting was to help identify transportation stakeholders and ITS champions in the region, and to gather input from the attendees on the proposed process, and to solicit recommendations for making the process more effective.

Fred Burchett then began a directed discussion of specific issues, some of which were contained in an email sent to participants prior to the meeting. The issues discussed were:

- Barriers to ITS implementation
- Comments on proposed process
- Identification and involvement of stakeholders
- Proposed stakeholder meeting agenda
- Stakeholder meeting breakout session topics

Below is a summary of the key points raised during this discussion

- Barriers to ITS implementation
  - Lack of awareness by citizens and public officials – education is needed
  - Attracting stakeholders to stakeholder meetings
  - Funding competition with Highway and Transit projects

- Comments on proposed process
  - May need to go to MPO meetings

- Attempt to arrange a joint meeting of the Technical Coordinating Committees (TCC) of the three MPOs in the area. A further comment was offered that such a meeting would be good for the area because regionalism is growing
- Make an effort to get on the agenda of each Transportation Advisory Committee subsequent to the TCC joint meeting. This may interest potential stakeholders in attendance at the TAC meetings and motivate them to attend the stakeholder's meeting
  - At TAC meetings, must tailor messages (e.g. transit is big in Charlotte, where as Gaston is more highway focused)
- May be useful provide map of where ITS has been implemented successfully in the state or in the country
- May be useful to somehow arrange a trip for stakeholders who become ITS champions to a completed project (out-of-state) to tour facility
- Attempt to use press to generate "buzz," get the word out (traffic person from Channel 9 was mentioned, but no name provided)
- Need a rock solid, in-state ITS success story (Winston-Salem results and CARAT improved response to road closures were mentioned as candidates)
  - Benton Payne anecdote: original interagency team was not cohesive; as the group encountered success, more agencies increased their commitment (e.g. towing companies, Medivac, the state of South Carolina); response policies change as a result of individual agency initiative, not NCDOT mandate.
- Add Union County to Metrolina Region

- Potential Stakeholders
  - MPO Transportation Advisory Committees
  - North Carolina Board of Transportation Members
  - UNCC
  - Users
    - Trucking Companies (a note was made that it has been hard to get trucking companies to MUMPO TAC meetings, Freight Liner made it to one Gaston MPO TAC meeting)
    - UPS
  - State legislature – Transportation Oversight Committee (try to arrange to address the committee)
  - Transit operators (CDOT Transit Division)
  - M.T.C
  - Motorist Patrol
  - Research Park Leaders

  - Highway Patrol (upper management has been supportive of CARAT)
  - Chambers of Commerce Business Committee for regional Transportation Solutions (Contacts: Peter Papas and Bob Morgan)
  - State House member Ed McMahan
  - US House Representative Price
  - Traffic Information Providers (Tim Kenny of Metro Networks)
  - Citizen Advisory Groups
  - Sierra Club (may not advocate, but should be included)
  - SCDOT and York County, SC officials

- What to attract stakeholders
  - Governor
  - Secretary of Transportation (once permanent is named)
  - Major North Carolina entertainment figure
  - Must have food
  - Raise general public awareness (if public presses issue, policymakers will respond)
  - Transit summit (where governor spoke) raised as example

- Break-out session topics
  - Metropolitan ITS/ System integration
  - Better integration of freeways and rapid transit through ITS
  - Environment Consequences (how ITS may help achieve environmental quality goals)
  - Safety
  - ITS for major incident/catastrophe response
  - Motorist/traveler information
  - General ITS education/information

- Comments on Agenda
  - Food is essential
  - Make sure there is a significant education component
  - Need a good speaker from outside (perhaps FHWA, nationally recognized ITS champion from another state)
  - Make sure participants know what we are trying to do. Emphasize more than just highways. Also point out regional implications

Following, Fred Burchett asked the participants when would be a good time to hold stakeholder meeting. Due to the Independence Day Holiday weekend, it was determined that the meeting should be held no earlier than July 12, 1999.

At this point Fred Burchett thanked the participants for coming and adjourned the meeting at approximately 11:30 AM

Following the meeting, Scott Cole of NCDOT gave presentation and tour of the CARAT facility. Several attendees stayed for the presentation and tour.

ACTION ITEM(S):

- Provide Stakeholder Names to Fred Burchett

ITS Strategic Deployment Plan

Metrolina Region
Joint TCC Meeting
July 28, 1999, 10:00 AM
MEETING SUMMARY

Attending:

Name	Agency	Phone	Fax	Email
Chris Bartleson	Bessemer City	704-629-2238	704-629-2237	chris@gaston.net
Sarah W. LaBelle	CAB / S.Rowan MPO	704-789-2520	704-786-4524	labelles@concord.ci.nc.us
Timothy D. Gibbs	Char.-Meck. Planning Comm.	704-336-3917	704-336-5123	pctdg@mail.charmeck.nc.us
John Rose	Charlotte DOT	704-336-4156	704-336-4400	trjer@mail.charmeck.nc.us
Bill Finger	Charlotte DOT	704-336-3900	704-336-4400	trwbf@mail.charmeck.nc.us
Jim Humphrey	Charlotte DOT / MUMPO	704-336-3883	704-336-4400	
Tim Greene	Charlotte Eng. & Prop. Mgt.	704-336-3649	704-336-4554	tigreene@ci.charlotte.nc.us
David Meachum	Charlotte Eng. & Prop. Mgt.	704-336-4122	704-336-6586	endgm.charmeck.nc.us
Don Lowe	City of Gastonia	704-866-6765	704-864-9732	donl@cityofgastonia.com
Danny Jackson	City of Mount Holly	704-822-2938	704-822-2933	dannyjackson@ci.mount-holly.nc.us
Aaron Bell	Gaston MPO	704-854-6604	704-864-9732	aaron@cityofgastonia.com
Robert Cook	Gaston MPO	704-866-6980	704-864-9732	robertc@cityofgastonia.com
Elizabeth Lowry	Gaston MPO	704-854-6663	704-864-9732	elizabethg@cityofgastonia.com
S. David Ross	Mecklenburg County Env. Pro.	704-336-5500	704-336-4391	rosssd@co.mecklenburg.nc.us
David Kraus	Mount Holly	704-827-3931	704-822-2933	davidkraus@ci.mount-holly.nc.us
Larry Gordon	NCDOT Albemarle	704-982-0101	704-982-3146	lgordon@mail.dot.state.nc.us
Ann Lorscheider	NCDOT Cong. Mgmt	919-250-4151	919-250-4195	alorscheider@dot.state.nc.us
Roberto Canales	NCDOT Constr. & Maint.	919-715-5662	919-715-2656	rcanales@dot.state.nc.us
Benton Payne	NCDOT Division 10	704-982-0101	704-982-3146	bpayne@mail.dot.state.nc.us
Scott Cole	NCDOT Division 10	704-342-6814	704-342-6967	scole@mail.dot.state.nc.us
Ray Spangler	NCDOT Division 12	704-480-5400	704-480-5401	rspangler@dot.state.nc.us
Bob Jenkins	NCDOT Division 12	704-480-5400	704-480-5401	bobjenkins@dot.state.nc.us
Douglas Waters	NCDOT Division 9	336-761-2200	336-761-2347	dwaters@mail.dot.state.nc.us
Alpesh Patel	NCDOT Statewide Planning	919-715-5737	919-715-1160	patd@dot.state.nc.us
Jamal Alavi	NCDOT Statewide Planning	919-715-5737	919-571-1160	alavi@swp.dot.state.nc.us
Linda Dosse	NCDOT Statewide Planning	919-715-5737	919-715-1160	dosse@dot.state.nc.us
Bucky Galloway	NCDOT TEB	828-251-6178	828-251-6394	dgalloway@dot.state.nc.us
Bill Sherrill	Town of Matthews	704-847-4411	704-845-1964	
Charles Reese	Towns of Dallas & Stanley	704-922-3176	704-922-4701	cer@vnet.net
Steve Blakley	Kimley-Horn and Associates	704-954-7474	704-333-0845	sblakley@kimley-horn.com
Fred Burchett	Kimley-Horn and Associates	919-677-2085	919-677-2050	fburchett@kimley-horn.com
Kenn Fink	Kimley-Horn and Associates	919-677-2085	919-677-2050	kfink@kimley-horn.com

The ITS Strategic Deployment Plan Joint TCC Meeting for the Metrolina Region was commenced at approximately 10:00 AM at the CARAT Operations Center in Charlotte, North Carolina. Following is a summary of the proceedings of this meeting.

Metrolina Region
Joint TCC Meeting
July 28, 1999, 10:00 AM
MEETING SUMMARY

Fred Burchett gave a brief introduction and provided an overview of the presentation. Mr. Burchett discussed the purpose of the Statewide ITS Strategic Deployment Plan. Mr. Burchett stated that a strategic deployment plan provides road map to guide the implementation of ITS projects in North Carolina, and is required by the FHWA to obtain future funding for ITS projects. Additionally, Mr. Burchett stated that it was important to develop the plan as ITS projects will be evaluated against other projects for funding on local TIPs.

Mr. Burchett then provided background information on ITS. An ITS video *"Saving Lives, Time and Money"* was shown, and examples of ITS projects and measured benefits were shown.

Kenn Fink than presented the process by which the Strategic Deployment Plan would be developed. Mr. Fink emphasized that the most important factor in the process was to get as much local involvement in the process as possible, so that the final plan will have been developed with local interests in mind, and will have support at the TIP level.

Mr. Burchett then began a discussion with the group of ITS needs in the Metrolina Region. The discussion centered around several major elements:

- Transit and transit related issued,
- Extending the CARAT freeway management system,
- Emergency Services,
- Implementation.

After the general discussion Mr. Burchett and Mr. Fink distributed a form to all participants. The form listed the following ITS user services:

- Transit – Intra-City Bus
- Transit – Commuter Rail/Light Rail
- Freeway Management/Incident Management
- Commercial Vehicle Operations
- Emergency Services
- Traveler Information Systems

Mr. Burchett asked the participants to indicate there area of interest, to identify what the major problem in the Metrolina Region was that ITS could address, and to list the names of any individuals who were not present, but who should be involved.

Mr. Fink gathered the responses and Mr. Burchett thanked the participants for coming and adjourned the meeting at approximately 11:30 AM

ACTION ITEM(S):

- Those who did not return "Area of Interest" form please do so via fax to Kenn Fink @ (919) 677-2050.

ITS Strategic Deployment

Metrolina Area
Joint TCC Meeting
July 28, 1999
10:00 AM

AGENDA

- Introductions
- Purpose of Strategic Plan
- What are Intelligent Transportation Systems?
- ITS Video "*ITS - Saving Lives, Time and Money*"
- Examples of ITS Projects
- Development of Strategic Deployment Plan – the "*Revised*" Process
- Roundtable Discussion of ITS Needs

ITS Strategic Deployment

Metrolina Region Summit
November 17, 1999, 8:00 AM
MEETING SUMMARY

Attending:

Name	Agency	Phone
Max Melton	34th District NC House	919-733-5784
Bobby Barbee	82nd District NC House	919-733-5908
Martin Kazanjian	Acme Retail, Inc.	704-867-2336
Pete Overton	Acme Retail, Inc.	704-867-2336
F. Roberts	Acme Retail, Inc.	704-867-2336
Hap Carr	Allied Signal	704-370-2760
Minor Clemons	ALLTEL Communications, Inc	704-845-7743
Gary Walker	ALLTEL Communications, Inc.	919-235-4908
Wayne Pearson	BellSouth	704-529-7009
Tom Shircliff	BellSouth	704-529-7009
Byron Carpenter	Belmont Police Department	704-825-3792
Jeffrey Forsythe	Cabarrus Regional Chamber of Comm.	704-784-4600
Brian Hiatt	Cabarrus Regional Chamber of Comm.	704-786-6161
Alex Rankin	Cabarrus Regional Chamber of Comm.	704-786-5404
Richard Flowe	Cabarrus/S. Rowan Urban Area MPO	704-933-5999
John Downing	CDOT	704-336-3904
William Finger	CDOT	704-336-3883
Jim Humphrey	CDOT	704-336-3883
Fred Adams	Central Piedmont Comm. College	704-330-6566
Roger Dunn	Central Transport, Inc.	704-394-3313
Jason Wager	Centralina COG	704-348-2703
Bart Massey	Char/Meck Emergency Mgmt.	704-336-2791
Thomas Dwyer	Charlotte Chamber of Commerce	704-335-5383
Jesse Hite	Charlotte Chamber of Commerce	704-375-2438
Bob Linkner	Charlotte Chamber of Commerce	704-338-6700
Tim Greene	Charlotte Eng. & Property Mgmt. Dept.	704-336-3649
Jim Burke	Charlotte Fire Department	704-336-4174
Benny Warwick	Charlotte Fire Department	704-336-4174
Richard Laird	Charlotte Meck. Schools	704-348-6715
Michael Melaniphy	Charlotte Transit System	704-336-2420
Larry Blydenburgh	Charlotte-Mecklenberg Police Dept.	704-336-2352
Melvin Rape	City of Kannapolis – Public Works	704-938-5133
Jerry Cox	City of Monroe – City Manager	704-282-4501
Robert Cansler	Concord Police Department	704-783-2207
Stan Thompson	Consulting Telework	704-664-2122
T.W. Aldred	Dave Fuller & Assoc.	704-523-0008
Charlie Carden	DMV	919-733-7872
Chris McAdams	DMV Enforcement	919-818-0320
David Synder	FHWA	919-856-4354

Joe Stevens	FHWA	919-856-4430
Max Tate	FHWA	919-856-4430
Catherine Batey	FHWA - Planning & Programming	919-856-4330
Brad Hibbs	FHWA – Traffic Operations & Safety	919-856-4354
Rena Leary	Gaston Chamber of Commerce	
Robert Cook	Gaston Urban Area MPO	704-866-6980
Elizabeth Lowry	Gaston Urban Area MPO	704-854-6663
Don Lowe	Gastonia Traffic Engineering	704-866-6765
Wayne Sumter	Huntersville Police Department	704-875-6542
Debbie Collins	ITRE	704-639-7653
Steve Blakley	Kimley-Horn & Associates	
Fred Burchett	Kimley-Horn & Associates	919-677-2000
Mark Dunzo	Kimley-Horn & Associates, Inc	919-677-2000
Kenn Fink	Kimley-Horn & Associates, Inc	919-677-2000
Stephanie Harris	Kimley-Horn & Associates, Inc	919-677-2000
Wil Ravenhorst	Kimley-Horn & Associates, Inc	919-677-2000
Randy Goddard	Kublins Transportation Group	704-510-0080
Charki Nune	Kublins Transportation Group	704-510-0080
Bill Russell	Lake Norman Chamber of Commerce	
Mike Overcash	Lowe's Motor Speedway	704-455-4471
David Ross	Meck. Co. Env. Protection Dept.	704-336-5439
Bob Binford	Mecklenberg Co. Eng. & Building Stds	704-336-3718
Sally Ashworth	Merstar Motels and Resorts	704-408-8801
Boyd Cauble	Metropolitan Transit Commission	704-336-2009
Mary Ann Creech	Metropolitan Transit Commission	704-889-2291
George Fowler	Metropolitan Transit Commission	704-525-7377
Ron Tober	Metropolitan Transit Commission	704-336-3883
David Kesiah	Monroe Chamber of Commerce	704-289-3254
Ron Fowler	Monroe Fire Department	704-282-4700
Wes Brown	Motorola	704-662-9873
Max Hopper	Motorola	704-867-4306
Thomas Dillon	NC Board of Trans. – Division 10	704-283-2265
Frank Emory	NC Board of Trans. – Division 10	704-377-2536
David Hughes	NC Board of Trans. – Division 10	704-386-9189
Jack Palmer	NC Board of Trans. – Division 12	704-487-6351
Mike Cook	NC Emergency Mgt.	828-466-5585
Jim Dunlop	NCDOT	919-250-4151
Elizabeth Honeycutt	NCDOT	919-250-4151
Len Sanderson	NCDOT	919-733-7384
Roberto Canales	NCDOT – Construction & Materials	919-715-5662
Linda Dosse	NCDOT – Statewide Planning	919-715-5737
Alpesh Patel	NCDOT – Statewide Planning	919-715-5737

Chris Spencer	NCDOT - Traffic Engineering	919-250-4151
D. Galloway	NCDOT – Traffic Engineering	828-251-6178
James Hambright	NCDOT – Traffic Engineering	919-250-4151
Brian Staley	NCDOT – Traffic Engineering	336-896-7037
A. Wyatt	NCDOT – Traffic Engineering	919-733-1593
Steve Bridges	NCDOT Division 10	704-342-6967
Scott Cole	NCDOT Division 10	704-342-6967
Larry Gordon	NCDOT Division 10	704-982-0101
Benton Payne	NCDOT Division 10	704-982-0101
Tom Thrower	NCDOT Division 10	704-982-0101
Ray Spangler	NCDOT Division 12	704-480-5400
D. Waters	NCDOT Division 9	336-761-2200
Jamal Alavi	NCDOT- Statewide Planning	919-715-5737
Terry Hopkins	NCDOT- Traffic Engineering	919-250-4151
Ann Lorscheider	NCDOT- Traffic Engineering	919-250-4151
Emmett Robertson	NorthEast Medical Center	704-783-1403
Lynn Pernell	Parsons, Brinckerhoff, Quade & Douglas	704-944-3153
Henry McGill	PeeDee Regional Trans Authority	843-664-5711
Alfred Badgett	Post, Buckley, Schuh & Jernigan	704-522-7275
Todd Brooks	Post, Buckley, Schuh & Jernigan	704-522-7275
Brian Dehler	Ralph Whitehead Assoc, Inc	704-372-1885
Jack Casey	Rowan Co. Chamber of Commerce	704-663-4221
Steve Wilson	SC Highway Patrol	803-896-7920
Richard Jenkins	SCDOT	803-737-1455
Pete Wallace	Special Transportation Services	704-336-3860
Anthony Roberts	Stallings Town Manager	704-821-8557
Mike Nance	Star Freight, Inc.	704-399-2727
Barry Webb	Town of Cornelius – Town Manager	704-892-6031
Jan Beasley	Town of Cornelius Mayor	704-353-0797
Grege Wilder	Town of Marshville	704-624-2515
Ron Hughes	UNC HSRC	919-962-7411
Owen Furuseth	UNCC	704-547-2000
Virginia Morgan	Union Co. Chamber of Commerce	704-624-2515
Ed Smith	Union Co. Chamber of Commerce	704-821-7277
Barry Newton	Westar Technologies	704-568-6868

Metrolina Region Summit
November 17, 1999, 8:00 AM
MEETING SUMMARY

The ITS Strategic Deployment Plan - Metrolina Regional Summit commenced at approximately 8:00 AM at the Charlotte Convention Center in Charlotte, North Carolina. Following is a summary of the proceedings of this meeting.

8:00-9:00 AM Guests were registered and given the opportunity to explore demonstrations that were given on ITS technology. Included was an interactive simulation of the NCSmartLink website showing real-time traffic information and a video demonstrating ITS applications. A continental breakfast was also available during this time.

9:00-9:15 Mr. Len Sanderson, State Highway Administrator, and Mr. Tom Dillon, Member of the North Carolina Board of Transportation, welcomed guests and presented an overview of ITS and the day's events.

9:15-10:00 Mr. Fred Burchett, Mr. Mark Dunzo and Mr. Kenn Fink presented an overview of ITS that included specific technologies and their benefits.

10:00-10:30 Mr. C. David Hughes, member of the North Carolina Board of Transportation, and Mr. Benton Payne, NCDOT Division 10 Engineer, presented an overview of the CARAT Project.

10:45-11:45 Break-out sessions were conducted with four groups, each one focusing on a specific topic. Groups were asked to answer/discuss a series of questions on the topics of Traffic/Incident Management, ITS for Transit, Traveler Information Systems, and Commercial Vehicle Operations. Summaries from the breakout groups are shown below.

BREAK-OUT GROUP FINDINGS

TRAFFIC MANAGEMENT

If you could design the perfect way to get to work, what would it look like?

- Walking
- Air
- All 4-lanes roads
- Different business hours
- Transit
- Alternative modes of transportation
- Bicycle

- Rail
- Few signals - synchronized
- In-vehicle traveler information

As a motorist, what are the biggest frustrations?
- Other drivers – impatience with them
- Slow moving traffic in left lane
- Work zones
- Rubbernecking
- Lack of information about incidents
- Improper use of system; not using existing system
- Gridlock
- Poor synchronization of traffic signals

Where and under what conditions do you experience this frustration?
- Major traffic generators, i.e. malls, Lowe's Speedway
- Traffic signals –who is in charge? Backup power?
- Jurisdictional issues
- Access points on major highways
- Emergency response – priority and pre-emption

CARAT Project – What do we like and Where do we go?
- Communications – potential to immediately alert agencies
- Expansion to other corridors
  - Planning now
  - Major cost has already been incurred.
  - Quantify benefits of alternatives
- Highway Advisory Radio (HAR)
- Include in existing TIP's
- Links to all centers
- Old City Signal System – Charlotte needs an upgrade

Who are the ITS Champions in the Region?
- NCDOT, CDOT, etc.
- MPO – make the TIP recommendations
- NCDOT – uniting force
- Elected officials –control development

- Public – show them successful examples

Other Thoughts
- ITS is another tool; doesn't eliminate the need to build new facilities
- Less expensive to include ITS when a new facility is constructed.
- Need to look for opportunities to implement coordinated signal systems (e.g. US 29 in Concord)

ITS FOR TRANSIT

Issues
- Customer service issues at transit locations (shelters, benches, etc.)
- Improving routes – from radial-based system to node-based system -
- Dynamic changes – adaptive to changes
- Demand response schedule changes – cell. phones to contact drivers & schedule rides, etc.

Policy Makers
- Transit/Pedestrian friendly development
- Land Use Issues

If you could design a public transportation system for this region, what features would it have?
- Faster than driving
- Real time information on bus locations
- Empowering Information (improving image)
- Information provided in a multi-lingual format
- Relationships between ITS, highway users and transit
- Separate guideway (e.g. elevated light rail)
- Jurisdictional boundaries would be transparent to the user
- More Park & Ride lots with marketing to educate the public on their use and location
- Available real-time information – customer friendly
- Address Americans with Disabilities Act issues
- Facilitate connections between modes
- Comfortable
- Single point of information for highway and transit modes
- Affordable
- Interregional connections

- Flexible

What role would advanced technology play in this system?
- Smart Cards – pre-paid
- Fare payment (Smart Cards, etc.)
- Vehicle location and signal pre-emption
- Smart Cards for Determining ridership information and inter-jurisdictional
- Low Technological devices (i.e. phone) and high technological devices need to provide information to users

What are the most critical issues facing transit users?
- Information –what is available and easily accessible
- Growth Issues – Residential: unresponsive to suburban residents, forced to use highway system
- Alternate modes of transit
- Access to transit within neighborhoods and business parks
- Employer flextime issues

What are the most critical issues facing transit providers
- Transit Funding
- Load changes and land use
- Image of transit use
- Marketing – attractive to users of all types
- Transit has to contend with congestion on roadways (buses can get caught in backups)
- Travel speed
- Personal safety
- Providing information to users
- Age (image) of vehicles
- Operating costs South Carolina border counties under single jurisdictional control
- Crossover information more useful to transit operators than everyday driver

If you could only select one ITS Transit project to implement, what would it be?
- Congestion notification and alternatives (routes, modes, departure times, etc.)
- Information on best real-time options (routes and modes)
- Providing Park & Ride from all directions
- ITS for small collector services

TRAVELER INFORMATION SYSTEMS

Where do you get Traffic Information?

- Radio – however, not current or frequent enough
- Television
- Changeable message signs
- Call AAA
- Newspaper
- Highway Patrol
- Police
- FM Broadcast (Lowe's Speedway)
- Public Service Announcements – special events/incidents
- Police scanners
- Highway Advisory Radio (HAR)
- National Public Radio (major incident)
- Digital pagers
- Commercial vehicle dispatch
- Radar detector
- CB Radio
- Email/GPS

What traffic information do we want?

- REAL-TIME INFORMATION
- Digital pagers
- Internet/Email
- Radar detectors
- Web map
- En route/In vehicle access (i.e. in-vehicle alert for incidents)
- *211: Cellular traveler information
- Kiosks
- Weather information/road conditions
- FM radio subcarriers
- Subscription to pages and cellular calls
- Call a computer with GPS (i.e. no incidents within 10 miles)

Who would use traveler information?

- Out of towners
- Commuters

Priority of technology?
- Radio –general
- Radio – dedicated
- Cellular phone
- Television

COMMERCIAL VEHICLE OPERATIONS (CVO)
What are the existing concerns regarding Commercial Vehicle Operations?
- Driver Fatigue
- Equipment Violations
- Limited Resources for Enforcement
- Dishonesty of trucking companies reporting mileage and truck presence
- Trucks require twice the distance as a passenger vehicle to slow down at 55 mph
- 76% of incidents involving trucks are the fault of the passenger vehicle
- Overweight trucks detouring around weigh stations
- Some citations go against company instead of driver, when drivers switch companies, but their records do not transfer over and new company does not know of that record prior to hiring
- Locations of weigh stations not ideal – usually on condemned property
- Education of other motorists on:
  - Truck safety
  - No-zone and Smart-zone areas surrounding the truck
  - Truck braking distance
  - Large trucks appear slower than reality
- Funding
  - Discretionary funds are not designated
  - Limited funding available –use available dollars for safety
  - Effectiveness – cost/benefit
- Programs
  - Fuel Tax – Companies pay a tax for miles driven in the state
  - Inspection – tracks drivers, trucks, mileage, etc.
  - Interagency – NCDOT, Private sector, Highway Patrol
  - House Bill 303 – fines truckers for violations
  - For trucking industry, have great drivers train others
  - Majority of DMV patrols are on non-interstate roads, where most incident and violations occur

What are ITS Solutions?

- Cameras upstream from weigh stations capture detouring trucks
- CARAT – may provide snapshots of trucks on I-77 to DMV
- Transponders on trucks – limits slow downs, use of weigh stations and stopping of trucks
- New system vs. Legacy Systems
  - Installed into trucks
  - Contains information on trucks, such as insurance, records, violations, company, etc.
  - Information downloaded and evaluated to determine if truck needs to be stopped
  - Will remove bad drivers from the road and not to another company
  - Company and driver profiles can be accessed
  - Ideally, should be compatible across state lines
- "Virtual" weigh stations
- IRIS system – braking based on infrared detection of functional braking
- Intelligent vehicles – In-vehicle technology detects fatigue, reads physiological factors
- Dedicated lanes and lane restrictions
- Update technology, classification, etc. of trucks to all sectors of traffic management

11:45-12:15 A summary of each of the breakout group's findings was presented to the entire group while lunch was being served.

12:15-1:15 Mr. Ron Tober, Metropolitan Transit Commission, spoke on the role of using ITS to improve transit in Columbus, Ohio. Mr. Frank E. Emory, Jr., Member of the North Carolina Board of Transportation, provided concluding remarks to the days activities.

ACTION ITEM(S):

The first Regional Team Meetings for the Metrolina Region will be held on Tuesday, January 18, 2000 at the Metrolina Regional Traffic Management Center (formerly the CARAT center) from 10:00 to 12:00. The purpose of this meeting will be to discuss and refine potential projects that have been developed as a result of your input. Your participation is warmly welcomed and essential in order for this to be a true regional plan for integrated system deployment. A mailing providing more information on the meeting will be coming soon.

In the interim, we would like your input on these minutes, as well as your input on the Summit in general. We will be holding several more summits across the state and would like to know your opinions of what was good, and what could be improved. To that end, we have enclosed a small survey sheet, along with a postage paid return envelope. This form also asks for your input about potential projects that should be included in the plan. Please take the time to fill out this form and send it back, as it will help to guide both the project and the deployment plan in the Metrolina Region.

Please direct any further comments or suggestions you have for these minutes or Summit to Kenn Fink via email at ITS-METROLINA@KIMLEY-HORN.COM or by phone at (919) 677-2237.

National ITS Architecture Compliance

The Statewide ITS Architecture and Strategic ITS Deployment Plan development process are both intended to be planning tools. The Strategic ITS Deployment Plan is a planning document which draws inputs from potential ITS customers throughout the State and Region. These inputs are logged and documented, then ranked to provide a snapshot of the perceived ITS needs for the next 20 years. Based on this documentation, the benefits of each project or improvement can be identified and, in turn, added to regional Transportation Improvement Plans (TIP) and the North Carolina Statewide Transportation Improvement Plan (STIP).

The development of the Statewide ITS Architecture is intended to guide the implementation process by providing a structure around which to design. ITS elements and concepts are generically named to permit a wide variety of design options, changes in technology, or institutional changes that occur over time. The intent is to provide freedom to designers and implementers by providing a stable structure for interconnection while providing flexibility to meet the unique needs of specific users.

The National ITS Architecture is divided into three levels: logical, physical and technical. The logical architecture provides a functional view of a system that assists in organizing complex entities and relationships by identifying system functions and information flows. The logical architecture guides development and deployment through functional requirements that are independent of institutions and technology. The logical architecture does not identify how each ITS function is to be implemented.

The physical architecture is the physical representation of how a system should provide the desired functionality. The physical architecture defines the information and data flows between elements and the communication requirements needed to make the system function. The data flow definitions within the physical architecture require standards to provide functionality between systems, which is the basis of the ITS standards development process.

The technical architecture is the formal design and implementation process. The technical architecture defines the implementation of the physical architecture. The technical architecture is the formal design and implementation that defines system hardware and software functionality, their interaction, and the deployment of a system that processes and distributes the gathered data.

The three levels of the National ITS Architecture work together to refine the ITS needs from the planning stage down to a specific hardware deployment. For example, the logical and physical architecture may identify the need for shared traffic information. The physical architecture would define traffic information as traffic data from detectors and video from CCTV cameras.

The purpose of this document is to develop a logical architecture for ITS deployments in the State of North Carolina. The physical architecture is part of this document, but only in describing the interaction between elements, centers, etc. The appendices document the physical architecture through the data flow diagrams and other visual methods.

This document provides the logical and physical architectures as required by FHWA and used in the long-term ITS deployment throughout the state. The details in the development of the technical architecture are left up to each entity and their designers and implementers. The logical and physical architecture layers are a tool that is to be used by the designers and implementers to ensure that data and information is shared between systems. By approaching the ITS Architecture deployment from the logical and physical levels, this document will serve as a roadmap for ITS deployments throughout the State of North Carolina for years to come without locking the State into specific technologies that may change over time.

Off-Model Air Quality Analysis: A Compendium of Practice

Federal Highway Administration
Southern Resource Center
August 1999

Introduction

Air Quality analysis methodologies have become more refined over the years to fill the need in the transportation community to satisfy various requirements including Transportation Conformity and Congestion Mitigation and Air Quality Program project justification. Off-Model methods continue to be developed and refined to allow for analysis of innovative, as well as some common, projects to account for reductions in vehicular emissions. The most typical analysis is associated with Vehicle Miles of Travel (VMT) reductions, but reductions in emissions can also occur due to decreases in vehicular delay.

This is an observation in techniques which have been used in the South to provide for the evaluation of possible emission reductions. For the purpose of this compendium, Off-Model methodologies are analyses performed without the specific use of a Travel Demand Model. As previously stated, these analyses can be used for either of two primary purposes. These two purposes are Transportation Conformity Analyses and Congestion Mitigation and Air Quality (CMAQ) Improvement Program project justifications. The later of these two is probably the most crucial given the need for project justification as a funding mechanism; however, with the increasing difficulties in showing an offset of VMT growth in most areas, any reduction will only provide a benefit to the Conformity Process.

This compendium offers a look into several methodologies utilized in Federal Highway Administration's Southern Resource Center geographic area and may be duplicated and disseminated at will. These methodologies are not all encompassing but should offer valuable insight into Off-Model practice. Updates of this compendium will occur and include any needed changes in the reference section.

If you have any questions or comments please address them to:

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Intersection Improvements

1. General Analysis

This analysis incorporates a conservative approach to intersection improvements. It can be used for grade separation and signal timing. The conservative approach is only analyzing Volatile Organic Compound (VOC) reductions; however, NO_x may be analyzed in a similar fashion.

The analysis is as follows:

a) Calculate the existing VOC emissions.
$VOC_B = EF_B * VOL_{APP} * DIST_{APP}$

where,
VOC_B = Emissions before improvement, grams
EF_B = Emission factor (grams per mile) based on assumed speed before improvement
VOL_{APP} = Peak period approach volume
$DIST_{APP}$ = Approach distance in miles

b) Determine the average speed after the improvement.

c) Calculate the VOC emissions after the improvement.
$VOC_A = EF_A * VOL_{APP} * DIST_{APP}$

where,
VOC_A = Emissions after improvement, grams
EF_A = Emission factor (grams per mile) based on average speed after improvement

d) Calculate daily VOC emission reductions.
$VOC_R = (VOC_B - VOC_A)$

where,
VOC_R = VOC emission reductions, grams/day

2. Traffic Signal Computer Upgrade[2]

The analysis of this project was for the upgrade of computer equipment and software, cabinets and controllers, and replacement of the Communications Plant. The justification was based on an increase in the reliability of the traffic control device synchronization in the metropolitan area. This would decrease delays and reduce vehicle idle emissions. The analysis for this project was performed as follows:

a) 3-4 minutes per vehicle per direction on a major arterial with an average vehicle rate of 38,000 vehicles or 2533 hours per day was assumed to be the savings by having the more reliable system. These are the savings for a single computer section.

b) There were 60 computer sections amounting to a savings in idle time of 152,000 hours of vehicle delay per day.

c) Emission rates were established by Hillsborough County using Mobile 5a. The rates were as follows:
CO = 0.32018 kg/vehicle hour
VOC = 0.0227 kg/vehicle hour
NO_x = 0.00988 kg/vehicle hour

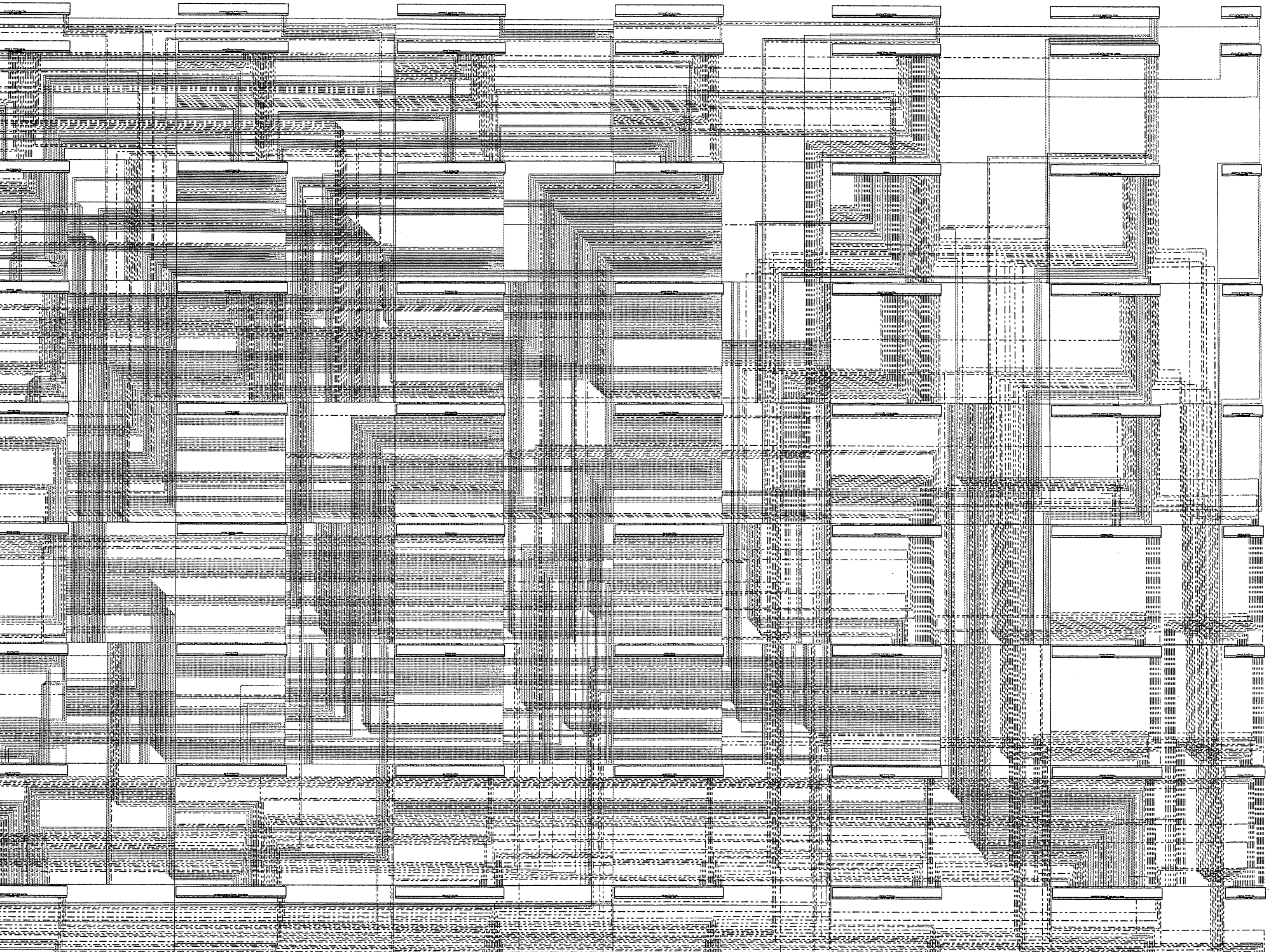
d) To be conservative, especially with the negative benefits which would occur for NOx with an increase in speed, emission benefits were assumed to occur only during the AM and PM peak periods (4 hours total).

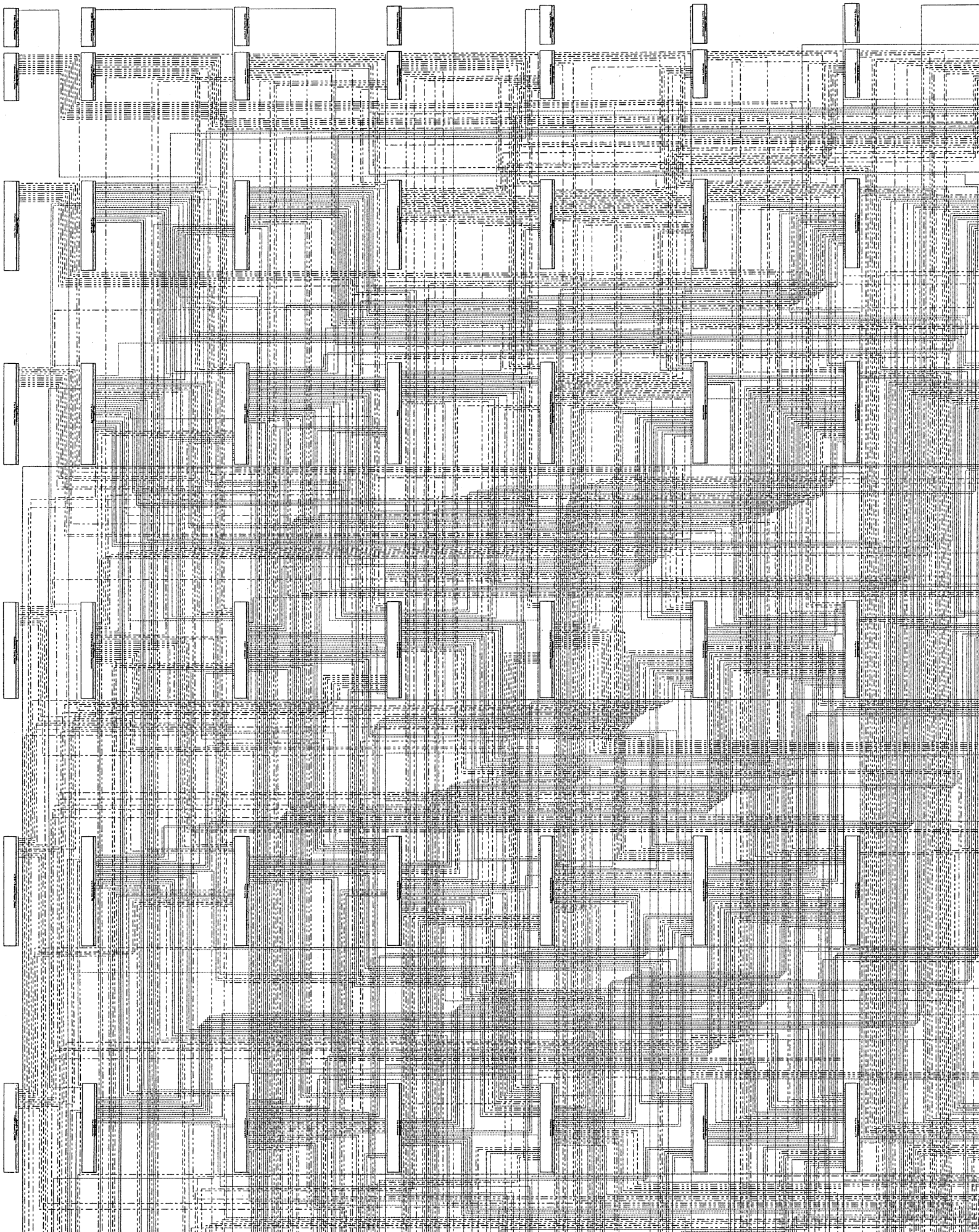
e) The benefits were then calculated.
CO = (0.32018 kg/vehicle hour)(152,000 veh hrs/day)(4 pk hrs/24 hrs) = 8,111 kg/day (8.922 tons/day)

VOC = (0.0227 kg/vehicle hour)(152,000 veh hrs/day)(4 pk hrs/24 hrs) = 575 kg/day (0.632 tons/day)

NO_x = (0.00988 kg/vehicle hour)(152,000 veh hrs/day)(4 pk hrs/24 hrs) = 250 kg/day (0.275 tons/day)

Note: Delay reductions can be obtained through most intersection analysis software.





High Occupancy Vehicle (HOV) Lanes

1. General Analysis

Similar to the general intersection analysis, the HOV lane analysis is again conservative with only VOC reductions accounted; however, NO_x may be analyzed in a similar fashion. This analysis also assumes that emission reductions are for the HOV lane only.

The analysis is performed as follows:

a) Calculate the existing VOC emissions.
$VOC_B = EF_B * VOL_B * DIST$

where,
VOC_B = Emissions before improvement, grams
EF_B = Emission factor (grams per mile) based on assumed speed before improvement
VOL_B = HOV Volume * Auto Occupancy of HOV / AO of Mixed Flow
DIST = HOV lane distance in miles

b) Determine the average speed after the improvement.

c) Calculate the VOC emissions after the improvement.
$VOC_A = EF_A * VOL_A * DIST$

where,
VOC_A = Emissions after improvement, grams
EF_A = Emission factor (grams per mile) based on average speed after improvement
VOL_A = HOV Volume after improvement

d) Calculate daily VOC emission reductions.
$VOC_R = (VOC_B - VOC_A)$

where,
VOC_R = VOC emission reductions, grams/day

Transit Improvements

1. General Analysis

The key to Transit Improvements is increased ridership. If transit ridership goes up then Vehicle Miles of Travel (VMT) should be reduced proportionately. The approach to this analysis is trend, that is, the analysis should call on previous expansions and their effect on ridership as input into the analysis. Since this increased ridership actually decreases VMT, reductions are found for both VOCs and NQ.

The analysis is as follows:

a) Calculate the daily VMT reduction.
VMT = (Avg. Daily Ridership After - Avg. Daily Ridership Before) / Avg. Auto Occupancy * Avg. Trip Length

b) Calculate the reduction in daily emissions.
$E_D = EF_x * VMT$

where,
E_D = Daily Emissions, grams/day
EF_x = Emission factor for pollutant x, grams/mile
VMT = vehicle mile/day

2. Express Bus Service for Broward County, Florida[3]

The analysis of this project was done to add new Express Bus Service in Broward County Florida. The basis for the project was to provide a needed service to the general public and reduce Vehicle Miles of Travel (VMT). The new transit service will operate during the morning (AM) and afternoon (PM) peaks. The AM peak will consist of three one-way trips from southwest Broward County to Downtown Fort Lauderdale with one return trip. The PM peak will consist of the reversal of the AM peak. Each peak is considered for exactly two hours (6:00AM to 8:00AM and 4:00PM to 6:00PM). The analysis for the project is as follows:

a) The Peak Hour Ridership was determined by running the FSUTMS model (Florida's Travel Demand Model). Both the AM and PM peak ridership were calculated by multiplying the peak hour ridership by 2.0 hours to yield Person Trips.
Peak Hour Ridership (from FSUTMS) = 54 Person Trips
AM Peak = 2.0 Hours * 54 = 108 Person Trips
PM Peak = 2.0 Hours * 54 = 108 Person Trips
Daily Person Trips = 108 + 108 = 216 Person Trips

b) An estimate of auto trips is found by dividing the person trips by the average auto occupancy for Home Based Work (HBW) trips.

216 Person Trips / 1.12 = 193 Auto Trips

c) An estimate of VMT is then calculated by assuming the auto trips would have taken the same trip length as the new service or 31.0 miles.
193 Auto Trips * 31.0 Miles/Trips = 5983 Daily VMT

d) The daily reduction in NO_x and VOC is found from MOBILE 5.0a using Light Duty Gas Vehicle (LDGV) emission rates. The average speed is derived from the average auto travel speed along the proposed transit route, which is 37.9 mph.
NO_x emission reduction = 5983 VMT * 1.63 g/mile * kg / 1000 g = 9.75 kg/day

VOC emission reduction = 5983 VMT * 1.25 g/mile * kg / 1000 g = 7.48 kg/day

e) The increase in VMT due to the express service is then found with the knowledge that there are four trips per peak period, again, with a distance of 31.0 miles.
Daily Transit VMT Increase = 31.0 * 8 trips/day = 248 Daily VMT

f) The daily increase in NO_x and VOC is found from MOBILE 5.0a using Heavy Duty Diesel Vehicles (HDDV) emission rates. The average speed is derived from the average bus speed along the proposed route, which is 28.7 mph.
NO_x emission increase = 248 VMT * 1.8 g/mile * kg/1000g = 0.45. kg/day
VOC emission increase = 248 VMT * 11.68 g/mile * kg/1000g = 2.90 kg/day

g) The net reduction is then found.
NO_x emission reduction = [9.75 - 2.90] kg/day = 6.85 kg/day
VOC emission reduction = [7.48 - 0.45] kg/day = 7.03 kg/day

3. Transit Centers[1]

Transit centers combine frequent bus service with park and ride (P&R) lots. The main benefit of these facilities is to reduce VMT, thus allowing for a reduction in both ozone precursors. The analysis for these facilities/projects is as follows:

a) The first step in the analysis is to estimate the number of autos removed by the new facility.
Autos Removed = Historical P&R Lot Utilization * Parking Spaces in Lot

b) Next, knowing the average peak hour speed and the average driving distance for the area emission reductions can be found. Note: Distance is multiplied by 2 to account for round trip.
Auto Emission Reduction = Autos Removed * (Avg. Driving Distance * 2) *Peak Hour Speed Emission Rate for LDGVs

c) Calculate the emissions from the increase in transit vehicles, utilizing known Avg. Driving Distance and Avg. Peak Hour Speed.
Bus Emission Increase = # of Bus Increase * (Avg. Driving Distance * 2) *Peak Hour Speed Emission Rate for HDDVs

d) The final calculation yields emission reductions in kg/day.
Daily Emission Reductions = (Auto Reductions - Bus Increase) * kg/1000g

4. Park and Ride Lots[1]

The P&R lot analysis is similar to the analysis of the transit center with the exception that increased bus service is not added. The analysis is as follows:

a) The first step in the analysis is to estimate the number of autos removed by the new facility.
Autos Removed = Historical P&R Lot Utilization * Parking Spaces in Lot

b) Next, knowing the average peak hour speed and the average driving distance for the area the total emission reductions can be found in, kg/day.
Auto Emission Reduction = Autos Removed * (Avg. Driving Distance * 2) *Peak Hour Speed Emission Rate for LDGVs * kg/1000g

Note: Distance is multiplied by 2 to account for round trip.

5. Alternative Fuel Buses[14]

Broward County, FL proposed to buy 4 alternative fuel (electric) transit buses to operate as circulators in Downtown Ft. Lauderdale. The purpose of this analysis is to demonstrate that using electric buses instead of the heavy-duty diesel buses will improve air quality.

Assumptions

- Buses will operate weekdays between 7:30 am and 5:30 pm (10 hours)
- 30 minute (0.5 hour) headway between buses per route
- Number of Daily Trips = Operation/Headway = 10 hours/0.5 hours = 20 Trips
- Average bus running speed is 14.4 mph
- Electric buses were assumed to produce zero emissions
- MOBILE model was used to obtain HDDV emission rates
- Round Trip distance is approximately 4.8 miles.

Analysis

a) Estimate emissions due to operating 4 diesel buses.

Emissions = Number of Buses * Round Trip Length * Number of Daily Trips * Emission Factor

VOCs = 4 buses * 4.8 round trip miles * 20 trips/day * 0.0030 kg/mile = 1.15 kg/day
CO = 4 buses * 4.8 round trip miles * 20 trips/day * 0.0163 kg/mile = 6.26 kg/day
NOx = 4 buses * 4.8 round trip miles * 20 trips/day * 0.0149 kg/mile = 5.72 kg/day

b) The above values reflect the emissions that would be reduced by replacement of the diesel buses with alternatively fueled buses thus showing an improvement in air quality.

6. Tampa Historic Electric Streetcar[15]

The proposed historic street car, when completed, provides intermodel connections for persons who arrive at the Convention Center or one of the hotels from Tampa International Airport and who have taken a taxi to downtown. To calculate emission benefits the following methodology was used.

a) Ridership projections were obtained from annual attendance figures estimated by the City of Tampa, Ybor City, the Port Authority, the Tampa Bay Lightning, the Florida Aquarium, and the Tampa Convention Center. Ridership figures were also based on the Memphis, TN streetcar project. The Memphis project is given reference since the attractions along the system are more relative to that of the Tampa/Ybor area. Based on the Memphis project a conservative 5% ridership at each of these venues was used for calculations. To estimate the miles saved an assumption was made that half of the estimated 5% ridership would ride the streetcar the 4.5 mile round trip between Ybor City and the Garrison Seaport District and the other half would ride shorter 2 mile trips.

	Yearly Projected Attendance	5% Ridership Assumption
Arena (Tampa Bay Lightning)	800,000	40,000
Aquarium	1,000,000	50,000
Crosstown-Ybor	1,320,000	66,000
Cruise Ships	300,000	15,000
Hogan Burke Theater	1,000,000	50,000
Hotels-Convention Center		
Convention Center	112,000	5,600
Special Events	305,000	15,250
Hyatt Regency	201,000	10,050
Local Events		
Guavaween	75,000	3,750
St. Patricks/Jose Riley	4,000	200
Gasparilla	100,000	5,000
Special Weekend	75,000	3,750
Total		264,600

b) Calculate VMT reductions.
132,300 passengers travel 2.0 miles round trip = 264,600
132,300 passengers travel 4.5 miles round trip = 595,350

Total = 859,950 miles/year = 2356 miles/day

c) Calculate emission reductions achieved from the program.

Emission Reductions = VMT * Emission Factor

VOCs = 0.0014 kg/mile * 2356 mile/day = 3.3 kg/day
CO = 0.0114 kg/mile * 2356 mile/day = 27 kg/day
NOx = 0.002 kg/mile * 2356 mile/day = 5 kg/day

7. Bus Bays on Oakland Park Boulevard[16]

Broward County proposed to build 5 transit bus-bays along Oakland Park Boulevard between Andrews Avenue and Inverrary Boulevard. Currently there are three transit routes that provide service and make frequent stops along that segment of Oakland Park Blvd. The purpose of this analysis is to demonstrate that building bus bays will improve air quality by estimating the reduction in time loss due to buses stopping to load and unload passengers. The concept is based on the reductive effects of local transit buses on the traffic carrying capacity of an arterial street. The concept in Chapter 12 of the 1994 Highway Capacity Manual (HCM) was used to estimate that reduction. For comparison purposes, traffic carrying capacity of Oakland Park Blvd. was evaluated under two conditions: one with bus bays and the other without.

In the first case, (with bus bays), buses stop in a lane that is not used by moving traffic (curb parking lane), thereby reducing the impeding effects to other traffic. The time loss to other vehicles due to bus stopping at a bus bay is estimated at 4 seconds per bus which counts for bus acceleration and deceleration time in the traffic stream.

In the second case, buses stop in the normal traffic lane impeding traffic flow and causing queuing of vehicles behind the stopped bus. The time loss in this case includes the dwell time to load and unload passengers and time loss for stopping and starting. The time loss for the lane in which the bus operates can be estimated using equation 12-3 of the HCM.

$TL = (g/c)*N*(D+L)$ where,

TL = time loss, in seconds per hour
g/c = intersection green time/cycle time ratio
N = number of buses that stop per hour
D = average dwell time, in seconds
L = additional time loss due to stopping, starting and queuing in seconds (6 to 8 seconds on average).

The analysis covers the impact of constructing five bus bays and to simplify the calculations, the reduction was estimated for one bus bay and then multiplied by five.

Assumptions

- Three bus routes operate along the subject segment of roadway
- 30 minute headway per route
- Number of buses (3*60/30) = 6 buses per hour
- Buses operate 16 hours/day average weekday
- The average speed along Oakland Park Blvd is 24.5 mph

Calculation of Loss Time with Bus Bays

The time loss is due to buses maneuvering in and out of bus bays.

Timeloss/hour = 4 seconds/bus * 6 buses/hour = 24 sec/hr

Where,

Time lost due to bus decel and accel out of bus bay, TL = 4
Number of buses per hour, N = 6
Average g/c = 0.4
Capacity of through lane = 1800 pcphpg (passenger cars per hour per green)
Capacity of one lane per hour at 0.4 g/c ratio = 1,800 * 0.4 = 720 pcphpg
Total green time available to through lanes is 0.4 * 3,600 sec/hour = 1,440 sec/hour

The percent loss in lane capacity may be expressed as:

(24 sec/hr / 1,440 sec/hour) * 100 = 1.7%

This results in a capacity loss in the right lane of 720 pcph * 0.017 = 12 pcph

Calculation of Loss Time without Bus Bays

The average dwell time using results from a field survey is 18 seconds per stop.

with,
g/c = 0.4
N = 6 buses/hr
D = 19 sec/bu
L = 6 sec/bus
TL = 0.4*6*(18+6) = 58 sec/hour

The percent loss in lane capacity is; (58/1,440)*100 = 4.03%

This results in a capacity loss in the right lane of 720 pcph * 0.0403 = 29 pcph

Emission Reduction Estimate

Net Capacity gain due to building Bus Bays = 29 - 12 = 17 pcph

The distance of the highway impacted by each bus bay is 500 feet

Net VMT gained by installing Bus Bays = (500 ft/ 5280 ft/mile) * (17 pcph * 16 hours/day)
= 26 mile/day

The average travel speed is 24.5 mph

VOCs = 26 mile/day * 2.31 g/mile * kg/1000g * 5 locations = 0.30 kg/day
CO = 26 mile/day * 20.31 g/mile * kg/1000g * 5 locations = 2.64 kg/day
NOx = 26 mile/day * 2.48 g/mile * kg/1000g * 5 locations = 0.32 kg/day

Vanpool Programs

1. General Analysis

Vanpools achieve emission benefits by reducing vehicle trips. Average commute distance is doubled to simulate a round trip. Average ridership should be based on historical vanpool size data obtained from the Metropolitan Planning Organization (MPO). The analysis is performed as follows:

a) Calculate vehicles removed by the vanpool.
VMT removed = Historical Vanpool Size / Avg. Vehicle Occupancy

b) Calculate the Daily Emission Reduction achieved by the reduced VMT, kg/day.
ER = VMT removed * Avg. Commute Length * 2 * Peak Hour Speed Emission Rate (LDGV) for Pollutant * kg/1000g

2. Dade County, Florida Vanpool Program[4]

The Dade County Vanpool Program provided 30 vans to qualified participants. Air quality benefits are achieved through the reduction in VMT associated with the reduction of individual commuters. The increase in vehicles due to the vans provides a somewhat negative offset of these benefits. The analysis consists of five steps.

1) Estimate the number of autos removed from the roadway by the vanpool program.
2) Calculate the Daily VMT eliminated.
3) Calculate the emission reductions due to the decrease in VMT.
4) Calculate the addition emissions generated by the new service.
5) Derive the Net Benefits from the Program.

The following provides an example.

a) Reduction in Automobile use is calculated by knowing the amount of seating and the average area auto occupancy. The total seating provided by the vanpool is 345 seats, divided into vans with capacities of 15 and 8 passengers. The average auto occupancy of Dade County is 1.22 persons per automobile. The calculation is as follows:
Autos Eliminated = Vanpool Seats / Auto Occupancy = 345 Seats / 1.22 Persons / Auto = 283 Autos

b) VMT reduction is calculated through the knowledge of average round trip commuter distance for Dade County.
VMT Reduction = Autos Eliminated * Average Commute Distance = 283 Autos * 21.8 Miles / Auto = 6169 Miles

c) Emission Reductions are found by using the appropriate emission rate for LDGVs.
The Average operating speed for Dade County is 27 mph.
Emission Reduction = Emission Rate * VMT * kg/1000g
Emission Reduction = 81.49 kg/day CO; = 10.49 kg/day VOC; = 10.12 kg/day NO_x

d) Emission increases, due to the implementation of the new vehicles, are calculated knowing the emission rate for Light Duty Gas Trucks (LDGTs) and the VMT for the fleet. The VMT is derived from the fleet size and the average Dade commute distance, previously noted, or 654 VMT.
Emission Reduction = Emission Rate * VMT * kg/1000g
Emission Reduction = 10.63 kg/day CO; = 1.33 kg/day VOC; = 1.22 kg/day NO_x

e) The Net Air Quality difference is thus a product of the Reductions calculated in step c) subtracted by the Increases in emissions calculated in step d).
CO = 70.86 kg/day
VOC = 9.16 kg/day
NO_x = 8.90 kg/day

Other Off-Model Methodologies

1. Incident Management[4]

The main goal of an Incident Management Program is to reduce congestion by removing vehicles which are debilitated, injured or just broke. Nonrecurring Congestion is the effect these vehicles have on the main line flow. Excess freeway emission are caused by this type of congestion. This analysis provides the basis for calculation of reduction of VOCs due to these programs; however, NO_x can be analyzed in a similar fashion.

a) Determine Regional Freeway VOC Emissions, E_B.

b) Determine Freeway Emissions due to Nonrecurring Congestion, E_C.
$E_C = E_B * 0.049$

Note: 4.9 Percent of Freeway Emissions are Caused by Nonrecurring Congestion.[5]

c) Next the Daily VOC reductions, E_D, are calculated. These assume, since freeway emissions are directly related to VMT, that the VMT in the program area is used to calculate emission reductions.
$E_D = L * VOL_i * E_C / VOL_T * EFF$

where,
L = Length of Freeway
VOL_i = Volume of Freeway i
VOL_T = Regional Freeway VMT
EFF = Project Effectiveness, 50% for Incident Detection and Response, 25% for Motorist Assistance, and 15% for Surveillance.

2. Pedestrian / Bikeway - General[1]

The main goal of bicycle and pedestrian facilities is to provide other transportation options for a community. The air quality benefits, as with most projects, come with a reduction in VMT. The general calculation for these projects is shown below.

a) First, calculate the Daily VMT reduction.
VMT Reduction = PD * Area * L * BMS

where,
PD = Population density of location, persons/mile^2
Area = Project length * 1 mile radius, mile^2
L = Round trip length, one-half of the project length times 2 daily trips, miles
BMS = Bike mode share, %

b) Last, calculate the Daily Emission reductions for a pollutant.
$E_D = EF_x$ * VMT Reduction

where,
E_D = Daily Emissions, grams/day
EF_x = Emission factor for pollutant x, grams/mile
VMT = vehicle mile/day

3. Bikeways - General

Little data is available on the utilization of bikeways; however, if such data is available it can prove invaluable in providing mode shift data to predict VMT reduction. The following is an analysis which shows how to calculate emission reductions if a history of mode shift percentage is known.

a) First Calculate daily VMT reduction provided by mode shift in the corridor.
VMT Reduction = AADT in the corridor * PMS

where,
PMS = historical percentage of mode shift for area

b) Last, calculate the Daily Emission reductions for a pollutant.
$E_D = EF_x$ * VMT Reduction

where,
E_D = Daily Emissions, grams/day
EF_x = Emission factor for pollutant x, grams/mile
VMT = vehicle mile/day

4. Sidewalks Near Schools in Farragut, Tennessee[6]

This project connected and extended previously constructed sidewalks along the parental responsibility zone of the Farragut schools. This analysis assumes a minimum usage increase of 10%, with a VMT reduction of 2 miles on arterials and 5 miles on local roads. There are 5,602 students in Farragut schools. It should be noted that students walking remove 4 vehicle trips. The analysis is as follows:

a) Since VMT is reduced on both arterials and local roads, there are two VMT reduction calculations.
Students with Travel Mode Change = 5602 *.10 = 560
VMT Reduction (Arterials) = 560 Persons * 2 Miles / Person = 1120
VMT Reduction (Local) = 560 Persons * 5 Miles / Person = 2800

b) Knowing the Average Speed for the given roadway classification emission factors are generated for both VOC and NO_x by roadway classification.
VOC Reduction = (1120 VMT * .00194 kg/mile) + (2800 VMT * .00227 kg/mile) = 8.6 kg/day

NO_x Reduction = (1120 VMT * .0022 kg/mile) + (2800 VMT * .0019 kg/mile) = 7.8 kg/day

5. I/M Compliance Changes, Texas[1]

Procedures leading to a higher compliance rate for a I/M program benefit air quality by detecting then repairing faulty emission control systems. The Texas Air Control Board was asked to supply projected compliance rates for changes to our current I/M system. Current compliance rates for each county are available from TACB. Emission benefits are calculated with the following equations:

a) The first step is to calculate the emission rates before and after a change in compliance rates, g/day.
Improved Emissions = Projected I/M compliance * AADT * 24hr Avg. Speed Emissions
Previous Emissions = Current I/M compliance * AADT * 24hr Avg. Speed Emissions

b) The final step is to calculate the Daily Emission benefit due to the increased compliance rate, kg/day.
Daily Reductions = (Improved Emissions - Previous Emissions) * kg/1000g

6. Travel Demand Management (TDM), Public Education Campaign, Pinellas County, Florida

The purpose of this project was to provide intermodal transportation information via several programs within a public education campaign to promote a shift from the use of single occupant vehicles (SOV) to alternatives such as bicycle, public transportation, and ridesharing. By educating the public to these transportation options and their cost effectiveness, a substantial number of vehicles could be eliminated from the roadway, thus reducing VMT.

a) The first step in the analysis is to combine the knowledge of Work Trips for the area with the Trip Rate. Pinellas County has an estimated employment of 377,312. Knowing the Home Based Work Trip Rate is 1.8, provided by the FSUTMS model, Daily work trips can be calculated.

Daily Work Trips = Total Employment * Trip Rate = 377,312 * 1.8 = 679,162 Trips

b) The 1991 Tampa Bay Regional Survey conducted by Florida Department of Transportation provided Trip Length Distribution information. This survey showed the Mean Trip Length was 26.6 minutes, reflecting travel time and terminal times. Using an average area speed of 19.6 mph the Average Trip Length can be calculated.

Average Trip Length = Average Travel Speed * Mean Trip Length * hr / 60min = 19.6 miles/hr * 26.6 min * hr / 60min = 8.68 miles

c) Next the VMT reduction can be found with the knowledge of the Daily Work Trips and Average Trip Length.

Work VMT Reduced = 679,162 * 8.68 miles = 5,895,123

d) Based on a study conducted by STAPPA/ALAPCO an estimated percent reduction in work travel VMT was found to be 0.5 %.[8] Therefore, the VMT Reduction due to the implementation of the Public Education Campaign is:

VMT Reduction = 5,895,123 * 0.5 = 29,476

e) The final step is to calculate the emission reductions using MOBILE emission factors for the known Average Speed of 19.6 mph.

Emission Reduction = VMT * Emission Factor (g/mile) * kg/1000g
VOC Reduction = 29,476 * 2.36 g/mile * kg/1000g = 69.6 kg/day
NO_x Reduction = 29,476 * 2.46 g/mile * kg/1000g = 72.5 kg/day
CO Reduction = 29,476 * 20.38 g/mile * kg/1000g = 600.7 kg/day

7. Ramp Metering[9]

Project/Policy Description

Ramp metering is a common form of urban traffic control. It aims to reduce or eliminate operational problems resulting from freeway congestion by restricting flow to the freeway mainline. With mainline demand restricted to less than the available capacity, ramp metering tends to maintain uninterrupted, non-congested flow on the freeway. By smoothing vehicle flow, ramp metering aids in utilizing the existing freeway capacity and also reduces the probability of accidents at merge locations.

The total change in vehicle emissions due to ramp metering can be broken down into 3 elements: travel changes on the mainline, travel changes on the arterial street system, and changes in operating conditions on the ramp. All three elements are affected by the changes in traffic volumes resulting from ramp metering, including increased traffic volumes on the arterial street system. Emissions on the ramp change because of the changes in the way the ramp is operating. Ramp metering results in greater vehicle idling and greater acceleration on the ramp then is experienced without ramp metering. The travel demand forecasting model accounts for emissions resulting before the implementation of ramp metering. Therefore, the change in emissions before and after ramp metering is calculated in this analysis so that the difference can be applied to the total regional emissions from the travel demand forecasting model.

Assumptions

1) Vehicles entering at on-ramps are not experiencing delay before the implementation of ramp metering.
2) Emissions associated with the change in acceleration/deceleration on the ramps are negligible compared to emissions resulting from the increases in travel speeds on the freeway mainline.
3) Ramps are only metered until the maximum storage capacity of the ramp is met. After that time, ramp metering is turned off.
4) Queuing emissions on the ramp include that emission of the vehicle traveling on the ramp at low speeds.
5) No consideration was given to concurrent use of HOV facilities in the ramp metering corridor.

Emissions Analysis

a) Determine the freeway limits and time period for the ramp metering. Considerations for the implementing ramp metering are discussed in the*Manual on Uniform Traffic Control Devices* and the NCHRP Report 232, *Guidelines for Selection of Ramp Control Systems,* Page 52. The Florida DOT used freeway volume after the merge point and speed to determine if ramp metering was warranted as documented in the *Southeast Florida Intelligent Corridor System Ramp Metering Analysis.*

b) Obtain volumes (HPMS adjusted), capacities, and speeds of travel demand network links for all freeways, ramps, arterial cross streets and parallel cross streets which will be affected by ramp metering.

c) Calculate total emissions before ramp metering for the time period when ramp metering will be implemented (such as the peak period):

Total Emissions = 3 ($LENGTH_i$ x #$VEHICLES_i$ x EMISSIONS $RATE_i$)

where,
i = 1 to n, and n is the number of links

d) Determine ramps to be metered and their associated storage capacity and metering rates. Ramp metering rates can be determined by first calculating the reduction in demand required to result in the desired mainline operating condition. After the mainline difference is calculated, the difference is distributed between the upstream ramps. The metering rate will be dependent on the required reduction, the demand at the particular on-ramp and the storage capacity of the ramp.
The recommended minimum metering rate is 300 vehicle per hour (for a one-lane ramp), and the recommended maximum is 900 vehicles per hour (for a one lane ramp).[10]

e) Calculate total ramp delay and the maximum individual waiting time due to the implementation of ramp metering. These can be calculated using basic queuing diagrams of number of vehicle accumulated over time (see example in Figure 1).

f) Estimate the diversion of vehicles to the parallel arterial. The number of vehicles diverting will be a function of trip length, queue length, ramp delay, and the availability and efficiency of alternate routes.[11]

g)Adjust volume/capacity ratios for all links as needed to account for ramp metering (queuing on the ramp) and diversion.

h) Calculate new freeway, cross street arterial and parallel arterial speeds using the travel demand model volume/delay curves.

i) Calculate after metering emissions based on new link volumes, capacities and speeds. Freeway and arterial link emissions can be calculated as described in step 3.

j) For the on-ramps, calculate queuing emissions as follows:
Total Emissions = Total Delay x Emissions $Rate_{rdling}$

k) Calculate the difference between before metering and after metering emissions.

l) Calculate emission differences for all peak periods which are metered.

m) Apply the total difference in emissions for all peak periods to the total emissions calculated from the travel demand model output (total emissions before metering).

Caveats

1) The congestion mitigation benefits of ramp metering are conservative since the methodology is based on average annual daily traffic and no incident delay is incorporated into the analysis. Ramp metering will reduce incidents at the freeway merge and the associated vehicle delay.

2) The emissions estimate assumes that there will be no change in demand as a result of the ramp metering. The same number of vehicle trips will be made although they may be diverted to the arterial street systems. The methodology does not take into consideration latent demand that may be generated with better operations on the freeway; in the forecast years, this will be less critical due to the fact that demand will probably greatly exceed capacity.

8. University North Commuter Center[13]

The University North Commuter Center will offer information and related services to promote greater use of a range of commuter alternatives to SOV travel, including public transit, ridesharing, bicycling, walking, telecommuting and others. Services include a staffed information center, located at the University Mall, a transportable kiosk for special events within University North, a "Virtual Commuter Center" web page, and covered bicycle storage units available to participating employment sites. The analysis is as follows:

a) Estimate the number of users/participants, users. 400 new users.

b) Estimate gross vehicle trip reduction (VTR) based on mode shifts. Gross one-way vehicle trips reduced = users * mode Trip Reduction Factor (TRF).

	Users	TRF	Daily Trips	Gross Trips Reduced
New Carpooler	210	0.5	2	210
New Vanpooler	10	0.9	2	18
New Transit User	100	1	2	200
New Bicyclist	50	1	2	100
New Walker	20	1	2	40
New Telecommuter	10	1	2	20
New Compressed Work Week	0	1	2	0
New Satellite Work Center User	0	0	2	0

Total Gross Trips Reduced = 588

c) Fraction of users or participants using prior HOV and/or SOV access, in percent.

HOV% = 10.0

d) Determine net VTR. Net Vehicle One-way trips reduced = Gross VTR * (1 - HOV%/100)

Net VTR = 588 * (1 - 10/100) = 529.2

e) Determine vehicle miles of travel reducted (VMT). Average one way trip length = 11 miles/trip.

Reduced VMT = Net VTR * Average Trip Length = 529.2 * 11 = 5821.2

f) Determine daily emissions reduced. Daily Emissions Reduced = Emission Factor * Reduced VMT
CO Reduced = 5821.2 mile/day * 0.0114 kg/mile = 66.4 kg/day
NOx Reduced = 5821.2 mile/day * 0.0020 kg/mile = 11.6 kg/day
VOC Reduced = 5821.2 mile/day * 0.0014 kg/mile = 8.1 kg/day

9. Qualitative Analysis - Intermodal Transit Links[12]

Project Description

The study will examine transit system connections withing the Downtown and a Historic Area that will coordinate with other transportation components such as parking and bicycle / pedestrian facilities.

Purpose

The proposed CMAQ grant will fund a study which examines opportunities to improve the efficiency of transportation services in the Downtown and a Historic area. This project will examine optimal transfer of locations for intermodal connections between all modes of transportation including an electric streetcar, future rail transit, buses, bicyclists, pedestrians, and automobiles. Parking availability and opportunities will also be analyzed.

Project Justification

Effective intermodal connections are essential to an efficient transportation system. This study will identify optimum locations for intermodal transfers to reduce vehicular congestion, idle times in buses and automobiles, and overlapping transit service. In addition this analysis will identify ways to improve service and public use for through trips and intermodal connections by improving or streamlining routes and improving and adjusting headways. The air quality benefits derived from this project are difficult to quantify. However, for the purposes of this analysis, it is assumed that efficient intermodal connections will achieve a substantial reduction in the overall mobile source emissions in the study area for several reasons.

- Increased transit ridership attributed to better connectivity
- Amenities for pedestrians and cyclists (information kiosks, bike racks, shelters)
- Increased use of non-motorized travel
- Less vehicle idle times waiting for connections
- Reduced, shorter internal trips, less cold starts

References

1. *Texas Department of Transportation: CMAQ Analysis Procedures*, date unknown.

2. City of Tampa, Hillsborough County MPO, *CMAQ Project Summary Tampa Traffic Signal Computer Upgrade II and III*, July, 1996.

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4. Florida Department of Transportation (FDOT) District 7, *Dade County Vanpool Project CMAQ Justification*, June, 1995.

5. "Urban Freeway Congestion: Quantification of the Problem and Effectiveness of Potential Solutions", Jeffrey A. Lindley, 1987.

6. State of Tennessee Annual Report on CMAQ, *Sidewalks Near Schools in Farragut*, 1995.

7. Pinellas County MPO, *CMAQ Justification Analysis: Public Education Campaign for New Transportation Ethics, Five Projects*, February, 1995.

8. STAPPA/ALAPCO, "Meeting the 15-Percent Rate-of-Progress Requirement Under the Clean Air Act: A Menu of Options", September, 1993.

9. *Regional Ramp Metering System Analysis*, Jean Mazur and Andy Edwards, FHWA, 1997.

10. *Traffic Control Systems Handbook*, FHWA, February, 1996.

11. "Guidelines for the Selection of Ramp Control Systems", NCHRP Report 232, May, 1981.

12. CMAQ Project Review and Concurrence - Planning - FDOT District 7, *Intermodal Transit Links Analysis*, Hillsborough County Metropolitan Planning Organization, 1997.

13. CMAQ Project Summary, *University North Transportation Initiative*, University of South Florida, 1998.

14. *Broward County CMAQ Justification Report Alternative Fuel Buses*, April, 1997.

15. CMAQ Project Review and Concurrence - Planning - FDOT District 7, *Tampa Historic Electric Streetcar*, Hillsborough County Metropolitan Planning Organization, 1996.

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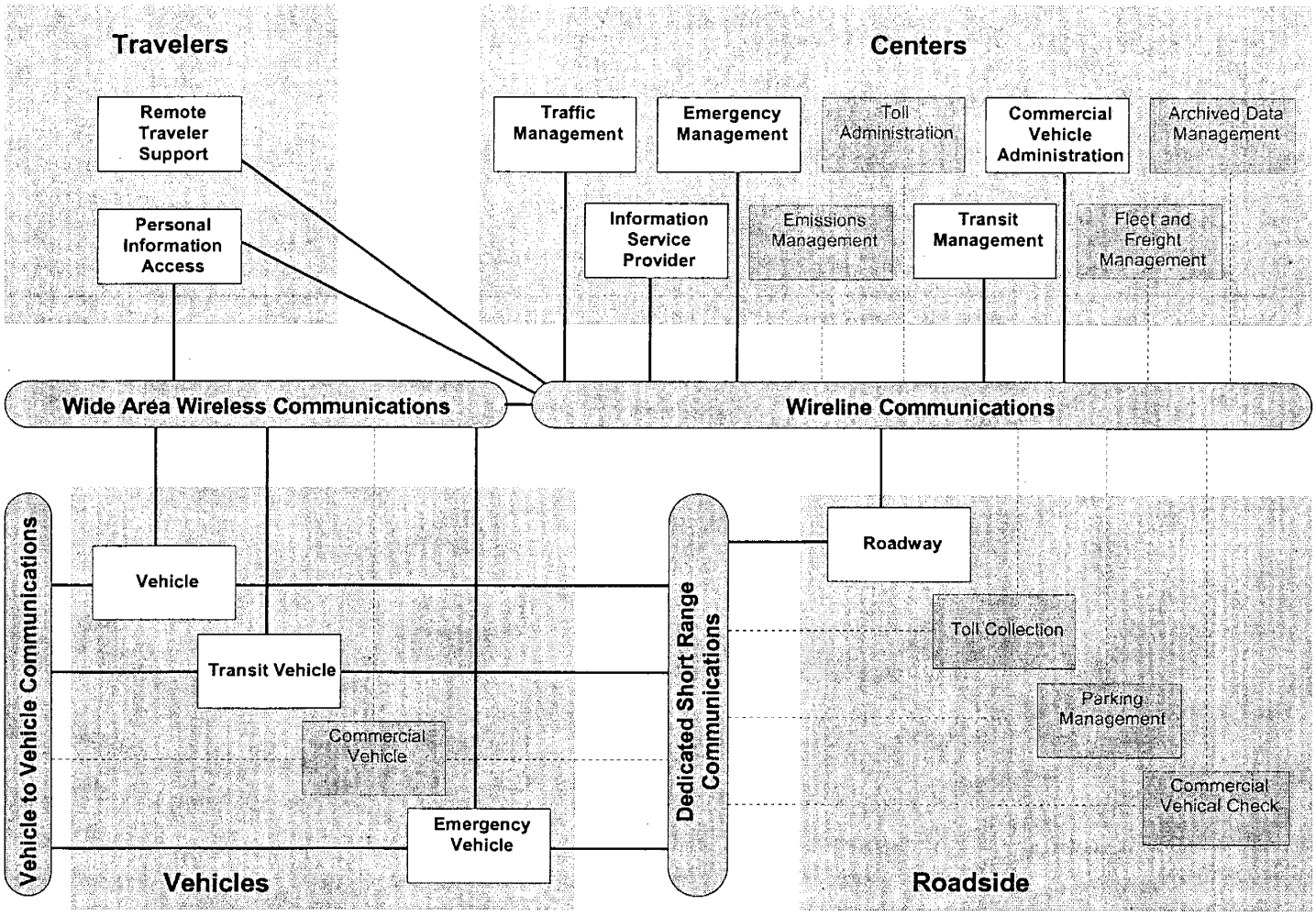
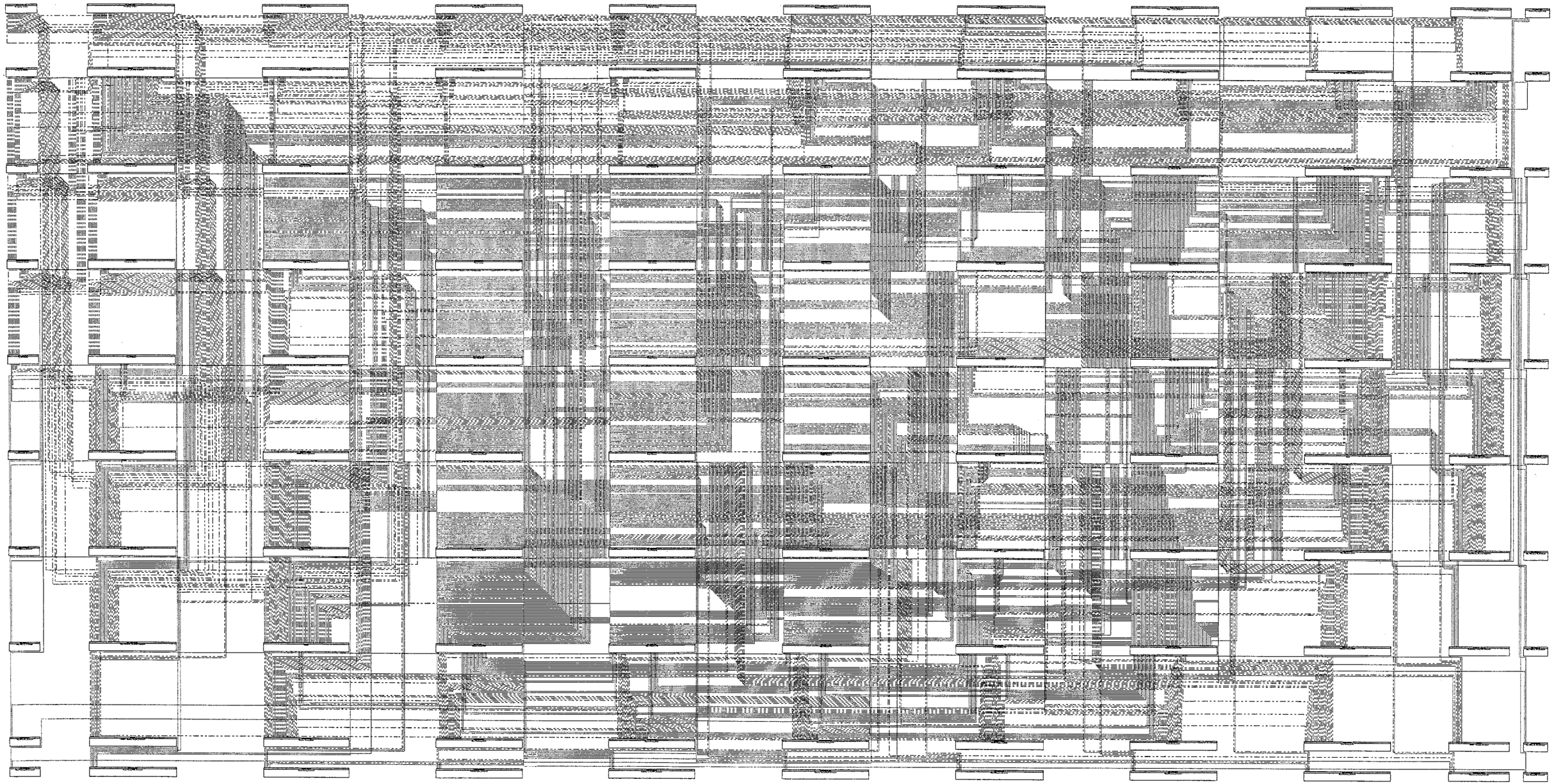
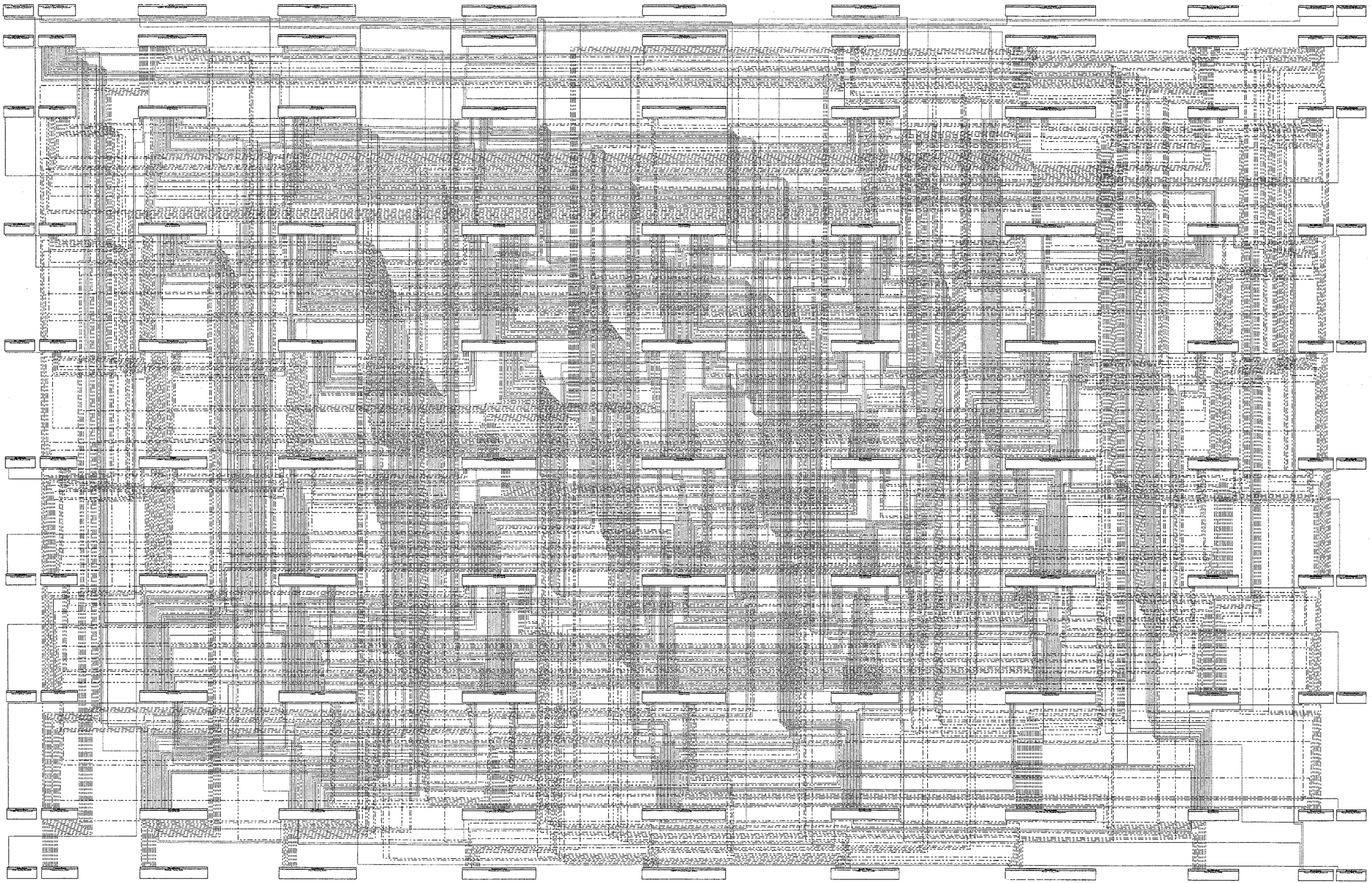
Metrolina Region Sausage Diagram



Metrolina Turbo Architecture Flow Diagram



Metrolina Turbo Architecture Interconnect Diagram



Inventory to Market Package Comparison

4/9/2001 12:03:31PM

Entity Name	Type	Element Name	
The following System(s) are in the inventory, but do not participate in any of the selected Market Packages			
Transit Driver	*Terminato*	Charlotte Transit	
Market Package: Advanced Railroad Grade Crossing			
Traffic Management	*Subsystem*	City of Charlotte	
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment	
Traffic Management	*Subsystem*	City of Gastonia	
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment	
Driver	*Terminato*		Not in Inventory
Pedestrians	*Terminato*		Not in Inventory
Rail Operations	*Terminato*		Not in Inventory
Traffic	*Terminato*		Not in Inventory
Wayside Equipment	*Terminato*		Not in Inventory
Traffic Management	*Subsystem*	Cabarrus County	Not Selected
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Salisbury	Not Selected
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Gaston County	Not Selected
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT Divison 6	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Rowan County	Not Selected
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected

Market Package: Broadcast Traveler Information

Entity Name	Type	Element Name

Market Package: Broadcast Traveler Information

Information Service Provider	*Subsystem*	Cabarrus County
Traffic Management	*Subsystem*	Cabarrus County
Remote Traveler Support	*Subsystem*	Cabarrus County_Kiosks
ISP Operator	*Terminato*	Cabarrus County_Personnel
Information Service Provider	*Subsystem*	City of Charlotte
Traffic Management	*Subsystem*	City of Charlotte
Remote Traveler Support	*Subsystem*	City of Charlotte_Kiosks
ISP Operator	*Terminato*	City of Charlotte_Personnel
Information Service Provider	*Subsystem*	City of Gastonia
Traffic Management	*Subsystem*	City of Gastonia
Remote Traveler Support	*Subsystem*	City of Gastonia_Kiosks
ISP Operator	*Terminato*	City of Gastonia_Personnel
Information Service Provider	*Subsystem*	City of Salisbury
Traffic Management	*Subsystem*	City of Salisbury
Remote Traveler Support	*Subsystem*	City of Salisbury_Kiosks
ISP Operator	*Terminato*	City of Salisbury_Personnel
Information Service Provider	*Subsystem*	Gaston County
Traffic Management	*Subsystem*	Gaston County
Transit Management	*Subsystem*	Gaston County
Remote Traveler Support	*Subsystem*	Gaston County_Kiosks
ISP Operator	*Terminato*	Gaston County_Personnel
Information Service Provider	*Subsystem*	Mecklenburg County
Traffic Management	*Subsystem*	Mecklenburg County
Remote Traveler Support	*Subsystem*	Mecklenburg County_Kiosks
ISP Operator	*Terminato*	Mecklenburg County_Personnel
Media	*Terminato*	Media
Information Service Provider	*Subsystem*	NCDOT - Metrolina Region
Traffic Management	*Subsystem*	NCDOT - Metrolina Region
Remote Traveler Support	*Subsystem*	NCDOT - Metrolina Region_Kiosks
ISP Operator	*Terminato*	NCDOT - Metrolina Region_Personnel
Information Service Provider	*Subsystem*	NCDOT - Statewide
Traffic Management	*Subsystem*	NCDOT - Statewide
ISP Operator	*Terminato*	NCDOT - Statewide_Personnel
Emergency Management	*Subsystem*	NCDOT Divison 6
Information Service Provider	*Subsystem*	NCDOT Divison 6
Traffic Management	*Subsystem*	NCDOT Divison 6
Remote Traveler Support	*Subsystem*	NCDOT Divison 6_Kiosks
ISP Operator	*Terminato*	NCDOT Divison 6_Personnel
Information Service Provider	*Subsystem*	Rowan County
Traffic Management	*Subsystem*	Rowan County
Remote Traveler Support	*Subsystem*	Rowan County_Kiosks
ISP Operator	*Terminato*	Rowan County_Personnel
Information Service Provider	*Subsystem*	Union County
Traffic Management	*Subsystem*	Union County
Remote Traveler Support	*Subsystem*	Union County_Kiosks
ISP Operator	*Terminato*	Union County_Personnel
Personal Information Access	*Subsystem*	User Personal Computing Devices

Entity Name	Type	Element Name	
Market Package: Broadcast Traveler Information			
Vehicle	*Subsystem*	Vehicles	
Emissions Management	*Subsystem*		Not in Inventory
Parking Management	*Subsystem*		Not in Inventory
Toll Administration	*Subsystem*		Not in Inventory
Driver	*Terminato*		Not in Inventory
Traveler	*Terminato*		Not in Inventory
Weather Service	*Terminato*		Not in Inventory
Emergency Management	*Subsystem*	Cabarrus County EMS	Not Selected
Emergency Management	*Subsystem*	Cabarrus County Sheriff	Not Selected
Transit Management	*Subsystem*	Charlotte Transit	Not Selected
Remote Traveler Support	*Subsystem*	Charlotte Transit_Kiosks	Not Selected
Emergency Management	*Subsystem*	City of Charlotte PD	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Emergency Management	*Subsystem*	City of Concord PD	Not Selected
Emergency Management	*Subsystem*	City of Gastonia PD	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Emergency Management	*Subsystem*	City of Marshville PD	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Emergency Management	*Subsystem*	City of Mathews PD	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Emergency Management	*Subsystem*	City of Monroe PD	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Emergency Management	*Subsystem*	City of Pineville PD	Not Selected
Emergency Management	*Subsystem*	City of Salisbury PD	Not Selected
Emergency Management	*Subsystem*	Mecklenburg County EMS	Not Selected
Emergency Management	*Subsystem*	Mecklenbury County Sheriff	Not Selected
Emergency Management	*Subsystem*	Rowan County EMS	Not Selected
Emergency Management	*Subsystem*	Rowan County Sheriff	Not Selected
Emergency Management	*Subsystem*	Union County EMS	Not Selected
Emergency Management	*Subsystem*	Union County Sheriff	Not Selected
Market Package: CV Administrative Processes			
Commercial Vehicle Administration	*Subsystem*	Mecklenburg County	
Fleet and Freight Management	*Subsystem*		Not in Inventory
CVO Information Requestor	*Terminato*		Not in Inventory
DMV	*Terminato*		Not in Inventory
Financial Institution	*Terminato*		Not in Inventory
Government Administrators	*Terminato*		Not in Inventory
Payment Instrument	*Terminato*		Not in Inventory
Enforcement Agency	*Terminato*	Cabarrus County Sheriff	Not Selected
Enforcement Agency	*Terminato*	City of Charlotte PD	Not Selected
Enforcement Agency	*Terminato*	City of Concord PD	Not Selected
Enforcement Agency	*Terminato*	City of Gastonia PD	Not Selected
Enforcement Agency	*Terminato*	City of Marshville PD	Not Selected
Enforcement Agency	*Terminato*	City of Mathews PD	Not Selected

Entity Name	Type	Element Name	
Market Package: CV Administrative Processes			
Enforcement Agency	*Terminato*	City of Monroe PD	Not Selected
Enforcement Agency	*Terminato*	City of Pineville PD	Not Selected
Enforcement Agency	*Terminato*	City of Salisbury PD	Not Selected
Enforcement Agency	*Terminato*	Mecklenbury County Sheriff	Not Selected
Enforcement Agency	*Terminato*	Rowan County Sheriff	Not Selected
Enforcement Agency	*Terminato*	Union County Sheriff	Not Selected
Market Package: Emergency Response			
Emergency Management	*Subsystem*	Cabarrus County EMS	
Emergency Vehicle Subsystem	*Subsystem*	Cabarrus County EMS	
Emergency Personnel	*Terminato*	Cabarrus County EMS	
Emergency System Operator	*Terminato*	Cabarrus County EMS	
Emergency Telecommunications System	*Terminato*	Cabarrus County EMS	
Emergency System Operator	*Terminato*	Cabarrus County EMS_Personnel	
Emergency Management	*Subsystem*	Cabarrus County Sheriff	
Emergency Personnel	*Terminato*	Cabarrus County Sheriff	
Emergency System Operator	*Terminato*	Cabarrus County Sheriff_Personnel	
Emergency Management	*Subsystem*	City of Charlotte PD	
Emergency Vehicle Subsystem	*Subsystem*	City of Charlotte PD	
Emergency Personnel	*Terminato*	City of Charlotte PD	
Emergency System Operator	*Terminato*	City of Charlotte PD	
Emergency Telecommunications System	*Terminato*	City of Charlotte PD	
Emergency System Operator	*Terminato*	City of Charlotte PD_Personnel	
Emergency Management	*Subsystem*	City of Concord PD	
Emergency Vehicle Subsystem	*Subsystem*	City of Concord PD	
Emergency Personnel	*Terminato*	City of Concord PD	
Emergency System Operator	*Terminato*	City of Concord PD	
Emergency Telecommunications System	*Terminato*	City of Concord PD	
Emergency System Operator	*Terminato*	City of Concord PD_Personnel	
Emergency Management	*Subsystem*	City of Gastonia PD	
Emergency Vehicle Subsystem	*Subsystem*	City of Gastonia PD	
Emergency Personnel	*Terminato*	City of Gastonia PD	
Emergency System Operator	*Terminato*	City of Gastonia PD	
Emergency Telecommunications System	*Terminato*	City of Gastonia PD	
Emergency System Operator	*Terminato*	City of Gastonia PD_Personnel	
Emergency Management	*Subsystem*	City of Marshville PD	
Emergency Vehicle Subsystem	*Subsystem*	City of Marshville PD	
Emergency Personnel	*Terminato*	City of Marshville PD	
Emergency System Operator	*Terminato*	City of Marshville PD	
Emergency Telecommunications System	*Terminato*	City of Marshville PD	
Emergency System Operator	*Terminato*	City of Marshville PD_Personnel	
Emergency Management	*Subsystem*	City of Mathews PD	
Emergency Vehicle Subsystem	*Subsystem*	City of Mathews PD	

Entity Name	Type	Element Name
		Market Package: Emergency Response
Emergency Personnel	*Terminato*	City of Mathews PD
Emergency System Operator	*Terminato*	City of Mathews PD
Emergency Telecommunications System	*Terminato*	City of Mathews PD
Emergency System Operator	*Terminato*	City of Mathews PD_Personnel
Emergency Management	*Subsystem*	City of Monroe PD
Emergency Vehicle Subsystem	*Subsystem*	City of Monroe PD
Emergency Personnel	*Terminato*	City of Monroe PD
Emergency System Operator	*Terminato*	City of Monroe PD
Emergency Telecommunications System	*Terminato*	City of Monroe PD
Emergency System Operator	*Terminato*	City of Monroe PD_Personnel
Emergency Management	*Subsystem*	City of Pineville PD
Emergency Vehicle Subsystem	*Subsystem*	City of Pineville PD
Emergency Personnel	*Terminato*	City of Pineville PD
Emergency System Operator	*Terminato*	City of Pineville PD
Emergency Telecommunications System	*Terminato*	City of Pineville PD
Emergency System Operator	*Terminato*	City of Pineville PD_Personnel
Emergency Management	*Subsystem*	City of Salisbury PD
Emergency Vehicle Subsystem	*Subsystem*	City of Salisbury PD
Emergency Personnel	*Terminato*	City of Salisbury PD
Emergency System Operator	*Terminato*	City of Salisbury PD
Emergency Telecommunications System	*Terminato*	City of Salisbury PD
Emergency System Operator	*Terminato*	City of Salisbury PD_Personnel
Emergency Vehicle Subsystem	*Subsystem*	Emergency Vehicles
Emergency Management	*Subsystem*	Mecklenburg County EMS
Emergency Vehicle Subsystem	*Subsystem*	Mecklenburg County EMS
Emergency Personnel	*Terminato*	Mecklenburg County EMS
Emergency System Operator	*Terminato*	Mecklenburg County EMS
Emergency Telecommunications System	*Terminato*	Mecklenburg County EMS
Emergency System Operator	*Terminato*	Mecklenburg County EMS_Personnel
Emergency Management	*Subsystem*	Mecklenbury County Sheriff
Emergency Personnel	*Terminato*	Mecklenbury County Sheriff
Emergency System Operator	*Terminato*	Mecklenbury County Sheriff_Personnel
Emergency Management	*Subsystem*	NCDOT Divison 6
Traffic Management	*Subsystem*	NCDOT Divison 6
Emergency System Operator	*Terminato*	NCDOT Divison 6_Personnel
Emergency Management	*Subsystem*	Rowan County EMS
Emergency Vehicle Subsystem	*Subsystem*	Rowan County EMS
Emergency Personnel	*Terminato*	Rowan County EMS
Emergency System Operator	*Terminato*	Rowan County EMS
Emergency Telecommunications System	*Terminato*	Rowan County EMS
Emergency System Operator	*Terminato*	Rowan County EMS_Personnel
Emergency Management	*Subsystem*	Rowan County Sheriff
Emergency Personnel	*Terminato*	Rowan County Sheriff

Entity Name	Type	Element Name	
		Market Package: Emergency Response	
Emergency System Operator	*Terminato*	Rowan County Sheriff_Personnel	
Emergency Management	*Subsystem*	Union County EMS	
Emergency Vehicle Subsystem	*Subsystem*	Union County EMS	
Emergency Personnel	*Terminato*	Union County EMS	
Emergency System Operator	*Terminato*	Union County EMS	
Emergency Telecommunications System	*Terminato*	Union County EMS	
Emergency System Operator	*Terminato*	Union County EMS_Personnel	
Emergency Management	*Subsystem*	Union County Sheriff	
Emergency Personnel	*Terminato*	Union County Sheriff	
Emergency System Operator	*Terminato*	Union County Sheriff_Personnel	
Map Update Provider	*Terminato*		Not in Inventory
Weather Service	*Terminato*		Not in Inventory
Traffic Management	*Subsystem*	Cabarrus County	Not Selected
Transit Management	*Subsystem*	Charlotte Transit	Not Selected
Traffic Management	*Subsystem*	City of Charlotte	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Traffic Management	*Subsystem*	City of Gastonia	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Traffic Management	*Subsystem*	City of Salisbury	Not Selected
Traffic Management	*Subsystem*	Gaston County	Not Selected
Transit Management	*Subsystem*	Gaston County	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Media	*Terminato*	Media	Not Selected
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Management	*Subsystem*	Rowan County	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
		Market Package: Emergency Routing	
Emergency Management	*Subsystem*	Cabarrus County EMS	
Emergency Vehicle Subsystem	*Subsystem*	Cabarrus County EMS	
Emergency Personnel	*Terminato*	Cabarrus County EMS	
Emergency System Operator	*Terminato*	Cabarrus County EMS	
Emergency System Operator	*Terminato*	Cabarrus County EMS_Personnel	
Traffic Management	*Subsystem*	City of Charlotte	
Emergency Management	*Subsystem*	City of Charlotte PD	
Emergency Vehicle Subsystem	*Subsystem*	City of Charlotte PD	
Emergency Personnel	*Terminato*	City of Charlotte PD	
Emergency System Operator	*Terminato*	City of Charlotte PD	
Emergency System Operator	*Terminato*	City of Charlotte PD_Personnel	
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment	
Emergency Management	*Subsystem*	City of Concord PD	

Entity Name	Type	Element Name	
		Market Package: Emergency Routing	
Emergency Vehicle Subsystem	*Subsystem*	City of Concord PD	
Emergency Personnel	*Terminato*	City of Concord PD	
Emergency System Operator	*Terminato*	City of Concord PD	
Emergency System Operator	*Terminato*	City of Concord PD_Personnel	
Traffic Management	*Subsystem*	City of Gastonia	
Emergency Management	*Subsystem*	City of Gastonia PD	
Emergency Vehicle Subsystem	*Subsystem*	City of Gastonia PD	
Emergency Personnel	*Terminato*	City of Gastonia PD	
Emergency System Operator	*Terminato*	City of Gastonia PD	
Emergency System Operator	*Terminato*	City of Gastonia PD_Personnel	
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment	
Emergency Management	*Subsystem*	City of Salisbury PD	
Emergency Vehicle Subsystem	*Subsystem*	City of Salisbury PD	
Emergency Personnel	*Terminato*	City of Salisbury PD	
Emergency System Operator	*Terminato*	City of Salisbury PD	
Emergency System Operator	*Terminato*	City of Salisbury PD_Personnel	
Emergency Vehicle Subsystem	*Subsystem*	Emergency Vehicles	
Emergency Management	*Subsystem*	Mecklenburg County EMS	
Emergency Vehicle Subsystem	*Subsystem*	Mecklenburg County EMS	
Emergency Personnel	*Terminato*	Mecklenburg County EMS	
Emergency System Operator	*Terminato*	Mecklenburg County EMS	
Emergency System Operator	*Terminato*	Mecklenburg County EMS_Personnel	
Emergency Management	*Subsystem*	Mecklenbury County Sheriff	
Emergency Personnel	*Terminato*	Mecklenbury County Sheriff	
Emergency System Operator	*Terminato*	Mecklenbury County Sheriff_Personnel	
Emergency Management	*Subsystem*	NCDOT Divison 6	
Traffic Management	*Subsystem*	NCDOT Divison 6	
Emergency System Operator	*Terminato*	NCDOT Divison 6_Personnel	
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	
Emergency Management	*Subsystem*	Rowan County EMS	
Emergency Vehicle Subsystem	*Subsystem*	Rowan County EMS	
Emergency Personnel	*Terminato*	Rowan County EMS	
Emergency System Operator	*Terminato*	Rowan County EMS	
Emergency System Operator	*Terminato*	Rowan County EMS_Personnel	
Emergency Management	*Subsystem*	Rowan County Sheriff	
Emergency Personnel	*Terminato*	Rowan County Sheriff	
Emergency System Operator	*Terminato*	Rowan County Sheriff_Personnel	
Emergency Management	*Subsystem*	Union County EMS	
Emergency Vehicle Subsystem	*Subsystem*	Union County EMS	
Emergency Personnel	*Terminato*	Union County EMS	
Emergency System Operator	*Terminato*	Union County EMS	
Emergency System Operator	*Terminato*	Union County EMS_Personnel	
Emergency Management	*Subsystem*	Union County Sheriff	
Emergency Personnel	*Terminato*	Union County Sheriff	
Emergency System Operator	*Terminato*	Union County Sheriff_Personnel	
Map Update Provider	*Terminato*		Not in Inventory
Traffic Management	*Subsystem*	Cabarrus County	Not Selected

Entity Name	Type	Element Name	
		Market Package: Emergency Routing	
Emergency Management	*Subsystem*	Cabarrus County Sheriff	Not Selected
Emergency Personnel	*Terminato*	Cabarrus County Sheriff	Not Selected
Emergency System Operator	*Terminato*	Cabarrus County Sheriff_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Emergency Management	*Subsystem*	City of Marshville PD	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	City of Marshville PD	Not Selected
Emergency Personnel	*Terminato*	City of Marshville PD	Not Selected
Emergency System Operator	*Terminato*	City of Marshville PD	Not Selected
Emergency System Operator	*Terminato*	City of Marshville PD_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Emergency Management	*Subsystem*	City of Mathews PD	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	City of Mathews PD	Not Selected
Emergency Personnel	*Terminato*	City of Mathews PD	Not Selected
Emergency System Operator	*Terminato*	City of Mathews PD	Not Selected
Emergency System Operator	*Terminato*	City of Mathews PD_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Emergency Management	*Subsystem*	City of Monroe PD	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	City of Monroe PD	Not Selected
Emergency Personnel	*Terminato*	City of Monroe PD	Not Selected
Emergency System Operator	*Terminato*	City of Monroe PD	Not Selected
Emergency System Operator	*Terminato*	City of Monroe PD_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Emergency Management	*Subsystem*	City of Pineville PD	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	City of Pineville PD	Not Selected
Emergency Personnel	*Terminato*	City of Pineville PD	Not Selected
Emergency System Operator	*Terminato*	City of Pineville PD	Not Selected
Emergency System Operator	*Terminato*	City of Pineville PD_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Salisbury	Not Selected
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Gaston County	Not Selected
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Rowan County	Not Selected
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected

Entity Name	Type	Element Name	
		Market Package: Emergency Routing	
Vehicle	*Subsystem*	Vehicles	Not Selected
		Market Package: Freeway Control	
Traffic Management	*Subsystem*	Cabarrus County	
Traffic Operations Personnel	*Terminato*	Cabarrus County_Personnel	
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment	
Traffic Management	*Subsystem*	City of Charlotte	
Traffic Operations Personnel	*Terminato*	City of Charlotte_Personnel	
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment	
Traffic Management	*Subsystem*	City of Gastonia	
Traffic Operations Personnel	*Terminato*	City of Gastonia_Personnel	
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment	
Traffic Management	*Subsystem*	City of Salisbury	
Traffic Operations Personnel	*Terminato*	City of Salisbury_Personnel	
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment	
Traffic Management	*Subsystem*	Gaston County	
Traffic Operations Personnel	*Terminato*	Gaston County_Personnel	
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment	
Traffic Management	*Subsystem*	Mecklenburg County	
Traffic Operations Personnel	*Terminato*	Mecklenburg County_Personnel	
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	
Traffic Operations Personnel	*Terminato*	NCDOT - Metrolina Region_Personnel	
Traffic Management	*Subsystem*	NCDOT - Statewide	
Traffic Operations Personnel	*Terminato*	NCDOT - Statewide_Personnel	
Traffic Management	*Subsystem*	NCDOT Divison 6	
Traffic Operations Personnel	*Terminato*	NCDOT Divison 6_Personnel	
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	
Traffic Management	*Subsystem*	Rowan County	
Traffic Operations Personnel	*Terminato*	Rowan County_Personnel	
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	
Traffic Management	*Subsystem*	Union County	
Traffic Operations Personnel	*Terminato*	Union County_Personnel	
Construction and Maintenance	*Terminato*		Not in Inventory
Driver	*Terminato*		Not in Inventory
Traffic	*Terminato*		Not in Inventory
Traffic Management	*Subsystem*	City of Concord	Not Selected
Traffic Operations Personnel	*Terminato*	City of Concord_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Traffic Operations Personnel	*Terminato*	City of Marshville_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Traffic Operations Personnel	*Terminato*	City of Mathews_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Traffic Operations Personnel	*Terminato*	City of Monroe_Personnel	Not Selected

Entity Name	Type	Element Name	
Market Package: Freeway Control			
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Traffic Operations Personnel	*Terminato*	City of Pineville_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Market Package: HAZMAT Management			
Emergency Management	*Subsystem*	Cabarrus County EMS	
Emergency Management	*Subsystem*	Cabarrus County Sheriff	
Emergency Management	*Subsystem*	City of Charlotte PD	
Emergency Management	*Subsystem*	City of Concord PD	
Emergency Management	*Subsystem*	City of Gastonia PD	
Emergency Management	*Subsystem*	City of Marshville PD	
Emergency Management	*Subsystem*	City of Mathews PD	
Emergency Management	*Subsystem*	City of Monroe PD	
Emergency Management	*Subsystem*	City of Pineville PD	
Emergency Management	*Subsystem*	City of Salisbury PD	
Emergency Management	*Subsystem*	Mecklenburg County EMS	
Emergency Management	*Subsystem*	Mecklenbury County Sheriff	
Emergency Management	*Subsystem*	NCDOT Divison 6	
Traffic Management	*Subsystem*	NCDOT Divison 6	
Emergency Management	*Subsystem*	Rowan County EMS	
Emergency Management	*Subsystem*	Rowan County Sheriff	
Emergency Management	*Subsystem*	Union County EMS	
Emergency Management	*Subsystem*	Union County Sheriff	
Commercial Vehicle Subsystem	*Subsystem*		Not in Inventory
Fleet and Freight Management	*Subsystem*		Not in Inventory
Basic Vehicle	*Terminato*		Not in Inventory
Commercial Vehicle	*Terminato*		Not in Inventory
Traffic Management	*Subsystem*	Cabarrus County	Not Selected
Traffic Management	*Subsystem*	City of Charlotte	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Traffic Management	*Subsystem*	City of Gastonia	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Traffic Management	*Subsystem*	City of Salisbury	Not Selected
Traffic Management	*Subsystem*	Gaston County	Not Selected
Commercial Vehicle Administration	*Subsystem*	Mecklenburg County	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected

Entity Name	Type	Element Name	
Market Package: HAZMAT Management			
Traffic Management	*Subsystem*	Rowan County	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
Vehicle	*Subsystem*	Vehicles	Not Selected
Market Package: HOV Lane Management			
Traffic Management	*Subsystem*	City of Charlotte	
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment	
Traffic Management	*Subsystem*	NCDOT Divison 6	
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	
DMV	*Terminato*		Not in Inventory
Traffic Management	*Subsystem*	Cabarrus County	Not Selected
Enforcement Agency	*Terminato*	Cabarrus County Sheriff	Not Selected
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment	Not Selected
Enforcement Agency	*Terminato*	City of Charlotte PD	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Enforcement Agency	*Terminato*	City of Concord PD	Not Selected
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Gastonia	Not Selected
Enforcement Agency	*Terminato*	City of Gastonia PD	Not Selected
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Enforcement Agency	*Terminato*	City of Marshville PD	Not Selected
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Enforcement Agency	*Terminato*	City of Mathews PD	Not Selected
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Enforcement Agency	*Terminato*	City of Monroe PD	Not Selected
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Enforcement Agency	*Terminato*	City of Pineville PD	Not Selected
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Salisbury	Not Selected
Enforcement Agency	*Terminato*	City of Salisbury PD	Not Selected
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Gaston County	Not Selected
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	Not Selected
Enforcement Agency	*Terminato*	Mecklenbury County Sheriff	Not Selected
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Rowan County	Not Selected
Enforcement Agency	*Terminato*	Rowan County Sheriff	Not Selected

Entity Name	Type	Element Name	
Market Package: HOV Lane Management			
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
Enforcement Agency	*Terminato*	Union County Sheriff	Not Selected

Market Package: Incident Management System

Information Service Provider	*Subsystem*	Cabarrus County
Traffic Management	*Subsystem*	Cabarrus County
Traffic Operations Personnel	*Terminato*	Cabarrus County_Personnel
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment
Information Service Provider	*Subsystem*	City of Charlotte
Traffic Management	*Subsystem*	City of Charlotte
Emergency Management	*Subsystem*	City of Charlotte PD
Emergency Vehicle Subsystem	*Subsystem*	City of Charlotte PD
Emergency System Operator	*Terminato*	City of Charlotte PD
Emergency System Operator	*Terminato*	City of Charlotte PD_Personnel
Traffic Operations Personnel	*Terminato*	City of Charlotte_Personnel
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment
Information Service Provider	*Subsystem*	City of Gastonia
Traffic Management	*Subsystem*	City of Gastonia
Emergency Management	*Subsystem*	City of Gastonia PD
Emergency Vehicle Subsystem	*Subsystem*	City of Gastonia PD
Emergency System Operator	*Terminato*	City of Gastonia PD
Emergency System Operator	*Terminato*	City of Gastonia PD_Personnel
Traffic Operations Personnel	*Terminato*	City of Gastonia_Personnel
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment
Information Service Provider	*Subsystem*	City of Salisbury
Traffic Management	*Subsystem*	City of Salisbury
Traffic Operations Personnel	*Terminato*	City of Salisbury_Personnel
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment
Emergency Vehicle Subsystem	*Subsystem*	Emergency Vehicles
Information Service Provider	*Subsystem*	Gaston County
Traffic Management	*Subsystem*	Gaston County
Traffic Operations Personnel	*Terminato*	Gaston County_Personnel
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment
Emergency Management	*Subsystem*	Mecklenburg County EMS
Emergency Vehicle Subsystem	*Subsystem*	Mecklenburg County EMS
Emergency System Operator	*Terminato*	Mecklenburg County EMS
Emergency System Operator	*Terminato*	Mecklenburg County EMS_Personnel
Emergency Management	*Subsystem*	Mecklenbury County Sheriff
Emergency System Operator	*Terminato*	Mecklenbury County Sheriff_Personnel
Information Service Provider	*Subsystem*	NCDOT - Metrolina Region
Traffic Management	*Subsystem*	NCDOT - Metrolina Region
Traffic Operations Personnel	*Terminato*	NCDOT - Metrolina Region_Personnel
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment
Emergency Management	*Subsystem*	NCDOT Divison 6
Information Service Provider	*Subsystem*	NCDOT Divison 6

Entity Name	Type	Element Name	
		Market Package: Incident Management System	
Traffic Management	*Subsystem*	NCDOT Divison 6	
Emergency System Operator	*Terminato*	NCDOT Divison 6_Personnel	
Traffic Operations Personnel	*Terminato*	NCDOT Divison 6_Personnel	
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	
Information Service Provider	*Subsystem*	Rowan County	
Traffic Management	*Subsystem*	Rowan County	
Emergency Management	*Subsystem*	Rowan County Sheriff	
Emergency System Operator	*Terminato*	Rowan County Sheriff_Personnel	
Traffic Operations Personnel	*Terminato*	Rowan County_Personnel	
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	
Emergency Management	*Subsystem*	Union County Sheriff	
Emergency System Operator	*Terminato*	Union County Sheriff_Personnel	
Construction and Maintenance	*Terminato*		Not in Inventory
Event Promoters	*Terminato*		Not in Inventory
Map Update Provider	*Terminato*		Not in Inventory
Traffic	*Terminato*		Not in Inventory
Weather Service	*Terminato*		Not in Inventory
Emergency Management	*Subsystem*	Cabarrus County EMS	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	Cabarrus County EMS	Not Selected
Emergency System Operator	*Terminato*	Cabarrus County EMS	Not Selected
Emergency System Operator	*Terminato*	Cabarrus County EMS_Personnel	Not Selected
Emergency Management	*Subsystem*	Cabarrus County Sheriff	Not Selected
Emergency System Operator	*Terminato*	Cabarrus County Sheriff_Personnel	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Emergency Management	*Subsystem*	City of Concord PD	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	City of Concord PD	Not Selected
Emergency System Operator	*Terminato*	City of Concord PD	Not Selected
Emergency System Operator	*Terminato*	City of Concord PD_Personnel	Not Selected
Traffic Operations Personnel	*Terminato*	City of Concord_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Emergency Management	*Subsystem*	City of Marshville PD	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	City of Marshville PD	Not Selected
Emergency System Operator	*Terminato*	City of Marshville PD	Not Selected
Emergency System Operator	*Terminato*	City of Marshville PD_Personnel	Not Selected
Traffic Operations Personnel	*Terminato*	City of Marshville_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Emergency Management	*Subsystem*	City of Mathews PD	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	City of Mathews PD	Not Selected
Emergency System Operator	*Terminato*	City of Mathews PD	Not Selected
Emergency System Operator	*Terminato*	City of Mathews PD_Personnel	Not Selected
Traffic Operations Personnel	*Terminato*	City of Mathews_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Emergency Management	*Subsystem*	City of Monroe PD	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	City of Monroe PD	Not Selected

Entity Name	Type	Element Name	

Market Package: Incident Management System

Emergency System Operator	*Terminato*	City of Monroe PD	Not Selected
Emergency System Operator	*Terminato*	City of Monroe PD_Personnel	Not Selected
Traffic Operations Personnel	*Terminato*	City of Monroe_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Emergency Management	*Subsystem*	City of Pineville PD	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	City of Pineville PD	Not Selected
Emergency System Operator	*Terminato*	City of Pineville PD	Not Selected
Emergency System Operator	*Terminato*	City of Pineville PD_Personnel	Not Selected
Traffic Operations Personnel	*Terminato*	City of Pineville_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	Not Selected
Emergency Management	*Subsystem*	City of Salisbury PD	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	City of Salisbury PD	Not Selected
Emergency System Operator	*Terminato*	City of Salisbury PD	Not Selected
Emergency System Operator	*Terminato*	City of Salisbury PD_Personnel	Not Selected
Information Service Provider	*Subsystem*	Mecklenburg County	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Traffic Operations Personnel	*Terminato*	Mecklenburg County_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	Not Selected
Media	*Terminato*	Media	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Operations Personnel	*Terminato*	NCDOT - Statewide_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Emergency Management	*Subsystem*	Rowan County EMS	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	Rowan County EMS	Not Selected
Emergency System Operator	*Terminato*	Rowan County EMS	Not Selected
Emergency System Operator	*Terminato*	Rowan County EMS_Personnel	Not Selected
Information Service Provider	*Subsystem*	Union County	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
Emergency Management	*Subsystem*	Union County EMS	Not Selected
Emergency Vehicle Subsystem	*Subsystem*	Union County EMS	Not Selected
Emergency System Operator	*Terminato*	Union County EMS	Not Selected
Emergency System Operator	*Terminato*	Union County EMS_Personnel	Not Selected
Traffic Operations Personnel	*Terminato*	Union County_Personnel	Not Selected

Market Package: Interactive Traveler Information

Information Service Provider	*Subsystem*	NCDOT - Metrolina Region	
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	
Remote Traveler Support	*Subsystem*	NCDOT - Metrolina Region_Kiosks	
ISP Operator	*Terminato*	NCDOT - Metrolina Region_Personnel	
Personal Information Access	*Subsystem*	User Personal Computing Devices	
Emissions Management	*Subsystem*		Not in Inventory
Parking Management	*Subsystem*		Not in Inventory
Driver	*Terminato*		Not in Inventory
Financial Institution	*Terminato*		Not in Inventory

Entity Name	Type	Element Name	
Market Package: Interactive Traveler Information			
Map Update Provider	*Terminato*		Not in Inventory
Multimodal Transportation Service Provider	*Terminato*		Not in Inventory
Payment Instrument	*Terminato*		Not in Inventory
Traveler	*Terminato*		Not in Inventory
Weather Service	*Terminato*		Not in Inventory
Information Service Provider	*Subsystem*	Cabarrus County	Not Selected
Traffic Management	*Subsystem*	Cabarrus County	Not Selected
Emergency Management	*Subsystem*	Cabarrus County EMS	Not Selected
Emergency Management	*Subsystem*	Cabarrus County Sheriff	Not Selected
Remote Traveler Support	*Subsystem*	Cabarrus County_Kiosks	Not Selected
ISP Operator	*Terminato*	Cabarrus County_Personnel	Not Selected
Transit Management	*Subsystem*	Charlotte Transit	Not Selected
Transit Vehicle Subsystem	*Subsystem*	Charlotte Transit	Not Selected
Remote Traveler Support	*Subsystem*	Charlotte Transit_Kiosks	Not Selected
Information Service Provider	*Subsystem*	City of Charlotte	Not Selected
Traffic Management	*Subsystem*	City of Charlotte	Not Selected
Emergency Management	*Subsystem*	City of Charlotte PD	Not Selected
Remote Traveler Support	*Subsystem*	City of Charlotte_Kiosks	Not Selected
ISP Operator	*Terminato*	City of Charlotte_Personnel	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Emergency Management	*Subsystem*	City of Concord PD	Not Selected
Information Service Provider	*Subsystem*	City of Gastonia	Not Selected
Traffic Management	*Subsystem*	City of Gastonia	Not Selected
Emergency Management	*Subsystem*	City of Gastonia PD	Not Selected
Remote Traveler Support	*Subsystem*	City of Gastonia_Kiosks	Not Selected
ISP Operator	*Terminato*	City of Gastonia_Personnel	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Emergency Management	*Subsystem*	City of Marshville PD	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Emergency Management	*Subsystem*	City of Mathews PD	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Emergency Management	*Subsystem*	City of Monroe PD	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Emergency Management	*Subsystem*	City of Pineville PD	Not Selected
Information Service Provider	*Subsystem*	City of Salisbury	Not Selected
Traffic Management	*Subsystem*	City of Salisbury	Not Selected
Emergency Management	*Subsystem*	City of Salisbury PD	Not Selected
Remote Traveler Support	*Subsystem*	City of Salisbury_Kiosks	Not Selected
ISP Operator	*Terminato*	City of Salisbury_Personnel	Not Selected
Information Service Provider	*Subsystem*	Gaston County	Not Selected
Traffic Management	*Subsystem*	Gaston County	Not Selected
Transit Management	*Subsystem*	Gaston County	Not Selected
Remote Traveler Support	*Subsystem*	Gaston County_Kiosks	Not Selected
ISP Operator	*Terminato*	Gaston County_Personnel	Not Selected
Information Service Provider	*Subsystem*	Mecklenburg County	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected

Entity Name	Type	Element Name	
Market Package: Interactive Traveler Information			
Emergency Management	*Subsystem*	Mecklenburg County EMS	Not Selected
Remote Traveler Support	*Subsystem*	Mecklenburg County_Kiosks	Not Selected
ISP Operator	*Terminato*	Mecklenburg County_Personnel	Not Selected
Emergency Management	*Subsystem*	Mecklenbury County Sheriff	Not Selected
Media	*Terminato*	Media	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
ISP Operator	*Terminato*	NCDOT - Statewide_Personnel	Not Selected
Emergency Management	*Subsystem*	NCDOT Divison 6	Not Selected
Information Service Provider	*Subsystem*	NCDOT Divison 6	Not Selected
Traffic Management	*Subsystem*	NCDOT Divison 6	Not Selected
Remote Traveler Support	*Subsystem*	NCDOT Divison 6_Kiosks	Not Selected
ISP Operator	*Terminato*	NCDOT Divison 6_Personnel	Not Selected
Information Service Provider	*Subsystem*	Rowan County	Not Selected
Traffic Management	*Subsystem*	Rowan County	Not Selected
Emergency Management	*Subsystem*	Rowan County EMS	Not Selected
Emergency Management	*Subsystem*	Rowan County Sheriff	Not Selected
Remote Traveler Support	*Subsystem*	Rowan County_Kiosks	Not Selected
ISP Operator	*Terminato*	Rowan County_Personnel	Not Selected
Transit Vehicle Subsystem	*Subsystem*	Transit Vehicles	Not Selected
Information Service Provider	*Subsystem*	Union County	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
Emergency Management	*Subsystem*	Union County EMS	Not Selected
Emergency Management	*Subsystem*	Union County Sheriff	Not Selected
Remote Traveler Support	*Subsystem*	Union County_Kiosks	Not Selected
ISP Operator	*Terminato*	Union County_Personnel	Not Selected
Vehicle	*Subsystem*	Vehicles	Not Selected
Market Package: ISP Based Route Guidance			
Information Service Provider	*Subsystem*	City of Charlotte	
Traffic Management	*Subsystem*	City of Charlotte	
Remote Traveler Support	*Subsystem*	City of Charlotte_Kiosks	
ISP Operator	*Terminato*	City of Charlotte_Personnel	
Information Service Provider	*Subsystem*	City of Gastonia	
Traffic Management	*Subsystem*	City of Gastonia	
Remote Traveler Support	*Subsystem*	City of Gastonia_Kiosks	
ISP Operator	*Terminato*	City of Gastonia_Personnel	
Information Service Provider	*Subsystem*	NCDOT - Metrolina Region	
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	
Remote Traveler Support	*Subsystem*	NCDOT - Metrolina Region_Kiosks	
ISP Operator	*Terminato*	NCDOT - Metrolina Region_Personnel	
Personal Information Access	*Subsystem*	User Personal Computing Devices	
Driver	*Terminato*		Not in Inventory
Location Data Source	*Terminato*		Not in Inventory
Map Update Provider	*Terminato*		Not in Inventory
Traveler	*Terminato*		Not in Inventory

Entity Name	Type	Element Name	

Market Package: ISP Based Route Guidance

Information Service Provider	*Subsystem*	Cabarrus County	Not Selected
Traffic Management	*Subsystem*	Cabarrus County	Not Selected
Remote Traveler Support	*Subsystem*	Cabarrus County_Kiosks	Not Selected
ISP Operator	*Terminato*	Cabarrus County_Personnel	Not Selected
Transit Management	*Subsystem*	Charlotte Transit	Not Selected
Remote Traveler Support	*Subsystem*	Charlotte Transit_Kiosks	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Information Service Provider	*Subsystem*	City of Salisbury	Not Selected
Traffic Management	*Subsystem*	City of Salisbury	Not Selected
Remote Traveler Support	*Subsystem*	City of Salisbury_Kiosks	Not Selected
ISP Operator	*Terminato*	City of Salisbury_Personnel	Not Selected
Information Service Provider	*Subsystem*	Gaston County	Not Selected
Traffic Management	*Subsystem*	Gaston County	Not Selected
Transit Management	*Subsystem*	Gaston County	Not Selected
Remote Traveler Support	*Subsystem*	Gaston County_Kiosks	Not Selected
ISP Operator	*Terminato*	Gaston County_Personnel	Not Selected
Information Service Provider	*Subsystem*	Mecklenburg County	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Remote Traveler Support	*Subsystem*	Mecklenburg County_Kiosks	Not Selected
ISP Operator	*Terminato*	Mecklenburg County_Personnel	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
ISP Operator	*Terminato*	NCDOT - Statewide_Personnel	Not Selected
Information Service Provider	*Subsystem*	NCDOT Divison 6	Not Selected
Traffic Management	*Subsystem*	NCDOT Divison 6	Not Selected
Remote Traveler Support	*Subsystem*	NCDOT Divison 6_Kiosks	Not Selected
ISP Operator	*Terminato*	NCDOT Divison 6_Personnel	Not Selected
Information Service Provider	*Subsystem*	Rowan County	Not Selected
Traffic Management	*Subsystem*	Rowan County	Not Selected
Remote Traveler Support	*Subsystem*	Rowan County_Kiosks	Not Selected
ISP Operator	*Terminato*	Rowan County_Personnel	Not Selected
Information Service Provider	*Subsystem*	Union County	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
Remote Traveler Support	*Subsystem*	Union County_Kiosks	Not Selected
ISP Operator	*Terminato*	Union County_Personnel	Not Selected
Vehicle	*Subsystem*	Vehicles	Not Selected

Market Package: Multi-modal Coordination

Transit Management	*Subsystem*	Charlotte Transit
Transit Vehicle Subsystem	*Subsystem*	Charlotte Transit
Traffic Management	*Subsystem*	City of Charlotte
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment

Entity Name	Type	Element Name	
Market Package: Multi-modal Coordination			
Traffic Management	*Subsystem*	City of Gastonia	
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment	
Traffic Management	*Subsystem*	Gaston County	
Transit Management	*Subsystem*	Gaston County	
Traffic Management	*Subsystem*	NCDOT Divison 6	
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	
Transit Vehicle Subsystem	*Subsystem*	Transit Vehicles	
Parking Management	*Subsystem*		Not in Inventory
Multimodal Transportation Service Provider	*Terminato*		Not in Inventory
Traffic Management	*Subsystem*	Cabarrus County	Not Selected
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Salisbury	Not Selected
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Rowan County	Not Selected
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
Market Package: Network Surveillance			
Information Service Provider	*Subsystem*	Cabarrus County	
Traffic Management	*Subsystem*	Cabarrus County	
Traffic Operations Personnel	*Terminato*	Cabarrus County_Personnel	
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment	
Information Service Provider	*Subsystem*	City of Charlotte	
Traffic Management	*Subsystem*	City of Charlotte	
Traffic Operations Personnel	*Terminato*	City of Charlotte_Personnel	
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment	
Information Service Provider	*Subsystem*	City of Gastonia	
Traffic Management	*Subsystem*	City of Gastonia	

Entity Name	Type	Element Name	
		Market Package: Network Surveillance	
Traffic Operations Personnel	*Terminato*	City of Gastonia_Personnel	
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment	
Information Service Provider	*Subsystem*	City of Salisbury	
Traffic Management	*Subsystem*	City of Salisbury	
Traffic Operations Personnel	*Terminato*	City of Salisbury_Personnel	
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment	
Information Service Provider	*Subsystem*	Gaston County	
Traffic Management	*Subsystem*	Gaston County	
Traffic Operations Personnel	*Terminato*	Gaston County_Personnel	
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment	
Information Service Provider	*Subsystem*	NCDOT - Metrolina Region	
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	
Traffic Operations Personnel	*Terminato*	NCDOT - Metrolina Region_Personnel	
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment	
Information Service Provider	*Subsystem*	NCDOT Divison 6	
Traffic Management	*Subsystem*	NCDOT Divison 6	
Traffic Operations Personnel	*Terminato*	NCDOT Divison 6_Personnel	
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	
Information Service Provider	*Subsystem*	Rowan County	
Traffic Management	*Subsystem*	Rowan County	
Traffic Operations Personnel	*Terminato*	Rowan County_Personnel	
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	
Construction and Maintenance	*Terminato*		Not in Inventory
Map Update Provider	*Terminato*		Not in Inventory
Traffic	*Terminato*		Not in Inventory
Traffic Management	*Subsystem*	City of Concord	Not Selected
Traffic Operations Personnel	*Terminato*	City of Concord_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Traffic Operations Personnel	*Terminato*	City of Marshville_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Traffic Operations Personnel	*Terminato*	City of Mathews_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Traffic Operations Personnel	*Terminato*	City of Monroe_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Traffic Operations Personnel	*Terminato*	City of Pineville_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	Mecklenburg County	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Traffic Operations Personnel	*Terminato*	Mecklenburg County_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Operations Personnel	*Terminato*	NCDOT - Statewide_Personnel	Not Selected

Entity Name	Type	Element Name	
Market Package: Network Surveillance			
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	Union County	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
Traffic Operations Personnel	*Terminato*	Union County_Personnel	Not Selected
Market Package: Probe Surveillance			
Information Service Provider	*Subsystem*	Gaston County	
Traffic Management	*Subsystem*	Gaston County	
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment	
Toll Administration	*Subsystem*		Not in Inventory
Location Data Source	*Terminato*		Not in Inventory
Information Service Provider	*Subsystem*	Cabarrus County	Not Selected
Traffic Management	*Subsystem*	Cabarrus County	Not Selected
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	City of Charlotte	Not Selected
Traffic Management	*Subsystem*	City of Charlotte	Not Selected
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	City of Gastonia	Not Selected
Traffic Management	*Subsystem*	City of Gastonia	Not Selected
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	City of Salisbury	Not Selected
Traffic Management	*Subsystem*	City of Salisbury	Not Selected
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	Mecklenburg County	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	NCDOT Divison 6	Not Selected
Traffic Management	*Subsystem*	NCDOT Divison 6	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	Rowan County	Not Selected

Entity Name	Type	Element Name	
		Market Package: Probe Surveillance	
Traffic Management	*Subsystem*	Rowan County	Not Selected
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	Not Selected
Information Service Provider	*Subsystem*	Union County	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
Vehicle	*Subsystem*	Vehicles	Not Selected
		Market Package: Regional Traffic Control	
Traffic Management	*Subsystem*	Cabarrus County	
Traffic Operations Personnel	*Terminato*	Cabarrus County_Personnel	
Traffic Management	*Subsystem*	City of Charlotte	
Traffic Operations Personnel	*Terminato*	City of Charlotte_Personnel	
Traffic Management	*Subsystem*	City of Monroe	
Traffic Operations Personnel	*Terminato*	City of Monroe_Personnel	
Traffic Management	*Subsystem*	City of Salisbury	
Traffic Operations Personnel	*Terminato*	City of Salisbury_Personnel	
Traffic Management	*Subsystem*	Mecklenburg County	
Traffic Operations Personnel	*Terminato*	Mecklenburg County_Personnel	
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	
Traffic Operations Personnel	*Terminato*	NCDOT - Metrolina Region_Personnel	
Traffic Management	*Subsystem*	NCDOT - Statewide	
Traffic Operations Personnel	*Terminato*	NCDOT - Statewide_Personnel	
Traffic Management	*Subsystem*	NCDOT Divison 6	
Traffic Operations Personnel	*Terminato*	NCDOT Divison 6_Personnel	
Traffic Management	*Subsystem*	Rowan County	
Traffic Operations Personnel	*Terminato*	Rowan County_Personnel	
Traffic Management	*Subsystem*	Union County	
Traffic Operations Personnel	*Terminato*	Union County_Personnel	
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Traffic Operations Personnel	*Terminato*	City of Concord_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Gastonia	Not Selected
Traffic Operations Personnel	*Terminato*	City of Gastonia_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Traffic Operations Personnel	*Terminato*	City of Marshville_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Traffic Operations Personnel	*Terminato*	City of Mathews_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Traffic Operations Personnel	*Terminato*	City of Pineville_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment	Not Selected

Entity Name	Type	Element Name	

Market Package: Regional Traffic Control

Traffic Management	*Subsystem*	Gaston County	Not Selected
Traffic Operations Personnel	*Terminato*	Gaston County_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	Not Selected
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	Not Selected

Market Package: Standard Railroad Grade Crossing

Traffic Management	*Subsystem*	City of Charlotte	
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment	
Traffic Management	*Subsystem*	City of Gastonia	
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment	
Driver	*Terminato*		Not in Inventory
Multimodal Crossings	*Terminato*		Not in Inventory
Pedestrians	*Terminato*		Not in Inventory
Rail Operations	*Terminato*		Not in Inventory
Traffic	*Terminato*		Not in Inventory
Wayside Equipment	*Terminato*		Not in Inventory
Traffic Management	*Subsystem*	Cabarrus County	Not Selected
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Salisbury	Not Selected
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Gaston County	Not Selected
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT Divison 6	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Rowan County	Not Selected
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	Not Selected

Entity Name	Type	Element Name	
Market Package: Standard Railroad Grade Crossing			
Traffic Management	*Subsystem*	Union County	Not Selected
Market Package: Surface Street Control			
Traffic Management	*Subsystem*	City of Concord	
Traffic Operations Personnel	*Terminato*	City of Concord_Personnel	
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	
Traffic Management	*Subsystem*	City of Gastonia	
Traffic Operations Personnel	*Terminato*	City of Gastonia_Personnel	
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment	
Traffic Management	*Subsystem*	City of Marshville	
Traffic Operations Personnel	*Terminato*	City of Marshville_Personnel	
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	
Traffic Management	*Subsystem*	City of Mathews	
Traffic Operations Personnel	*Terminato*	City of Mathews_Personnel	
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	
Traffic Management	*Subsystem*	City of Monroe	
Traffic Operations Personnel	*Terminato*	City of Monroe_Personnel	
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	
Traffic Management	*Subsystem*	City of Pineville	
Traffic Operations Personnel	*Terminato*	City of Pineville_Personnel	
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	
Traffic Management	*Subsystem*	City of Salisbury	
Traffic Operations Personnel	*Terminato*	City of Salisbury_Personnel	
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment	
Construction and Maintenance	*Terminato*		Not in Inventory
Driver	*Terminato*		Not in Inventory
Pedestrians	*Terminato*		Not in Inventory
Traffic	*Terminato*		Not in Inventory
Traffic Management	*Subsystem*	Cabarrus County	Not Selected
Emergency Management	*Subsystem*	Cabarrus County EMS	Not Selected
Emergency Management	*Subsystem*	Cabarrus County Sheriff	Not Selected
Traffic Operations Personnel	*Terminato*	Cabarrus County_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Charlotte	Not Selected
Emergency Management	*Subsystem*	City of Charlotte PD	Not Selected
Traffic Operations Personnel	*Terminato*	City of Charlotte_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment	Not Selected
Emergency Management	*Subsystem*	City of Concord PD	Not Selected
Emergency Management	*Subsystem*	City of Gastonia PD	Not Selected
Emergency Management	*Subsystem*	City of Marshville PD	Not Selected
Emergency Management	*Subsystem*	City of Mathews PD	Not Selected
Emergency Management	*Subsystem*	City of Monroe PD	Not Selected
Emergency Management	*Subsystem*	City of Pineville PD	Not Selected
Emergency Management	*Subsystem*	City of Salisbury PD	Not Selected
Traffic Management	*Subsystem*	Gaston County	Not Selected
Traffic Operations Personnel	*Terminato*	Gaston County_Personnel	Not Selected

Entity Name	Type	Element Name	
Market Package: Surface Street Control			
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Emergency Management	*Subsystem*	Mecklenburg County EMS	Not Selected
Traffic Operations Personnel	*Terminato*	Mecklenburg County_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	Not Selected
Emergency Management	*Subsystem*	Mecklenbury County Sheriff	Not Selected
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Traffic Operations Personnel	*Terminato*	NCDOT - Metrolina Region_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Operations Personnel	*Terminato*	NCDOT - Statewide_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Emergency Management	*Subsystem*	NCDOT Divison 6	Not Selected
Traffic Management	*Subsystem*	NCDOT Divison 6	Not Selected
Traffic Operations Personnel	*Terminato*	NCDOT Divison 6_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Rowan County	Not Selected
Emergency Management	*Subsystem*	Rowan County EMS	Not Selected
Emergency Management	*Subsystem*	Rowan County Sheriff	Not Selected
Traffic Operations Personnel	*Terminato*	Rowan County_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
Emergency Management	*Subsystem*	Union County EMS	Not Selected
Emergency Management	*Subsystem*	Union County Sheriff	Not Selected
Traffic Operations Personnel	*Terminato*	Union County_Personnel	Not Selected
Market Package: Traffic Information Dissemination			
Information Service Provider	*Subsystem*	Cabarrus County	
Traffic Management	*Subsystem*	Cabarrus County	
Traffic Operations Personnel	*Terminato*	Cabarrus County_Personnel	
Roadway Subsystem	*Subsystem*	Cabarrus County_Roadside Equipment	
Information Service Provider	*Subsystem*	City of Charlotte	
Traffic Management	*Subsystem*	City of Charlotte	
Traffic Operations Personnel	*Terminato*	City of Charlotte_Personnel	
Roadway Subsystem	*Subsystem*	City of Charlotte_Roadside Equipment	
Information Service Provider	*Subsystem*	City of Gastonia	
Traffic Management	*Subsystem*	City of Gastonia	
Traffic Operations Personnel	*Terminato*	City of Gastonia_Personnel	
Roadway Subsystem	*Subsystem*	City of Gastonia_Roadside Equipment	
Information Service Provider	*Subsystem*	City of Salisbury	
Traffic Management	*Subsystem*	City of Salisbury	
Traffic Operations Personnel	*Terminato*	City of Salisbury_Personnel	
Roadway Subsystem	*Subsystem*	City of Salisbury_Roadside Equipment	
Information Service Provider	*Subsystem*	Gaston County	
Traffic Management	*Subsystem*	Gaston County	
Transit Management	*Subsystem*	Gaston County	

Entity Name	Type	Element Name	
		Market Package: Traffic Information Dissemination	
Traffic Operations Personnel	*Terminato*	Gaston County_Personnel	
Roadway Subsystem	*Subsystem*	Gaston County_Roadside Equipment	
Information Service Provider	*Subsystem*	Mecklenburg County	
Traffic Management	*Subsystem*	Mecklenburg County	
Traffic Operations Personnel	*Terminato*	Mecklenburg County_Personnel	
Roadway Subsystem	*Subsystem*	Mecklenburg County_Roadside Equipment	
Information Service Provider	*Subsystem*	NCDOT - Metrolina Region	
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	
Traffic Operations Personnel	*Terminato*	NCDOT - Metrolina Region_Personnel	
Roadway Subsystem	*Subsystem*	NCDOT - Metrolina Region_Roadside Equipment	
Emergency Management	*Subsystem*	NCDOT Divison 6	
Information Service Provider	*Subsystem*	NCDOT Divison 6	
Traffic Management	*Subsystem*	NCDOT Divison 6	
Traffic Operations Personnel	*Terminato*	NCDOT Divison 6_Personnel	
Roadway Subsystem	*Subsystem*	NCDOT Divison 6_Roadside Equipment	
Information Service Provider	*Subsystem*	Rowan County	
Traffic Management	*Subsystem*	Rowan County	
Traffic Operations Personnel	*Terminato*	Rowan County_Personnel	
Roadway Subsystem	*Subsystem*	Rowan County_Roadside Equipment	
Basic Vehicle	*Terminato*		Not in Inventory
Driver	*Terminato*		Not in Inventory
Pedestrians	*Terminato*		Not in Inventory
Emergency Management	*Subsystem*	Cabarrus County EMS	Not Selected
Emergency Management	*Subsystem*	Cabarrus County Sheriff	Not Selected
Transit Management	*Subsystem*	Charlotte Transit	Not Selected
Emergency Management	*Subsystem*	City of Charlotte PD	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Emergency Management	*Subsystem*	City of Concord PD	Not Selected
Traffic Operations Personnel	*Terminato*	City of Concord_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Concord_Roadside Equipment	Not Selected
Emergency Management	*Subsystem*	City of Gastonia PD	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Emergency Management	*Subsystem*	City of Marshville PD	Not Selected
Traffic Operations Personnel	*Terminato*	City of Marshville_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Marshville_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Emergency Management	*Subsystem*	City of Mathews PD	Not Selected
Traffic Operations Personnel	*Terminato*	City of Mathews_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Mathews_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Emergency Management	*Subsystem*	City of Monroe PD	Not Selected
Traffic Operations Personnel	*Terminato*	City of Monroe_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Monroe_Roadside Equipment	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Emergency Management	*Subsystem*	City of Pineville PD	Not Selected
Traffic Operations Personnel	*Terminato*	City of Pineville_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	City of Pineville_Roadside Equipment	Not Selected

Entity Name	Type	Element Name	
Market Package: Traffic Information Dissemination			
Emergency Management	*Subsystem*	City of Salisbury PD	Not Selected
Emergency Management	*Subsystem*	Mecklenburg County EMS	Not Selected
Emergency Management	*Subsystem*	Mecklenbury County Sheriff	Not Selected
Media	*Terminato*	Media	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Operations Personnel	*Terminato*	NCDOT - Statewide_Personnel	Not Selected
Roadway Subsystem	*Subsystem*	NCDOT - Statewide_Roadside Equipment	Not Selected
Emergency Management	*Subsystem*	Rowan County EMS	Not Selected
Emergency Management	*Subsystem*	Rowan County Sheriff	Not Selected
Information Service Provider	*Subsystem*	Union County	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
Emergency Management	*Subsystem*	Union County EMS	Not Selected
Emergency Management	*Subsystem*	Union County Sheriff	Not Selected
Traffic Operations Personnel	*Terminato*	Union County_Personnel	Not Selected
Market Package: Transit Maintenance			
Transit Management	*Subsystem*	Charlotte Transit	
Transit Vehicle Subsystem	*Subsystem*	Charlotte Transit	
Transit Maintenance Personnel	*Terminato*	Charlotte Transit	
Transit Fleet Manager	*Terminato*	Charlotte Transit_Personnel	
Transit Management	*Subsystem*	Gaston County	Not Selected
Transit Fleet Manager	*Terminato*	Gaston County_Personnel	Not Selected
Transit Vehicle Subsystem	*Subsystem*	Transit Vehicles	Not Selected
Market Package: Transit Passenger and Fare Management			
Transit Management	*Subsystem*	Charlotte Transit	
Transit Vehicle Subsystem	*Subsystem*	Charlotte Transit	
Transit User	*Terminato*	Charlotte Transit	
Remote Traveler Support	*Subsystem*	Charlotte Transit_Kiosks	
Information Service Provider	*Subsystem*	Gaston County	
Transit Management	*Subsystem*	Gaston County	
Remote Traveler Support	*Subsystem*	Gaston County_Kiosks	
Transit Vehicle Subsystem	*Subsystem*	Transit Vehicles	
Financial Institution	*Terminato*		Not in Inventory
Payment Instrument	*Terminato*		Not in Inventory
Information Service Provider	*Subsystem*	Cabarrus County	Not Selected
Enforcement Agency	*Terminato*	Cabarrus County Sheriff	Not Selected
Remote Traveler Support	*Subsystem*	Cabarrus County_Kiosks	Not Selected
Transit System Operators	*Terminato*	Charlotte Transit_Personnel	Not Selected
Information Service Provider	*Subsystem*	City of Charlotte	Not Selected
Enforcement Agency	*Terminato*	City of Charlotte PD	Not Selected
Remote Traveler Support	*Subsystem*	City of Charlotte_Kiosks	Not Selected
Enforcement Agency	*Terminato*	City of Concord PD	Not Selected
Information Service Provider	*Subsystem*	City of Gastonia	Not Selected

Entity Name	Type	Element Name	
Market Package: Transit Passenger and Fare Management			
Enforcement Agency	*Terminato*	City of Gastonia PD	Not Selected
Remote Traveler Support	*Subsystem*	City of Gastonia_Kiosks	Not Selected
Enforcement Agency	*Terminato*	City of Marshville PD	Not Selected
Enforcement Agency	*Terminato*	City of Mathews PD	Not Selected
Enforcement Agency	*Terminato*	City of Monroe PD	Not Selected
Enforcement Agency	*Terminato*	City of Pineville PD	Not Selected
Information Service Provider	*Subsystem*	City of Salisbury	Not Selected
Enforcement Agency	*Terminato*	City of Salisbury PD	Not Selected
Remote Traveler Support	*Subsystem*	City of Salisbury_Kiosks	Not Selected
Transit System Operators	*Terminato*	Gaston County_Personnel	Not Selected
Information Service Provider	*Subsystem*	Mecklenburg County	Not Selected
Remote Traveler Support	*Subsystem*	Mecklenburg County_Kiosks	Not Selected
Enforcement Agency	*Terminato*	Mecklenbury County Sheriff	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Remote Traveler Support	*Subsystem*	NCDOT - Metrolina Region_Kiosks	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Statewide	Not Selected
Information Service Provider	*Subsystem*	NCDOT Divison 6	Not Selected
Remote Traveler Support	*Subsystem*	NCDOT Divison 6_Kiosks	Not Selected
Information Service Provider	*Subsystem*	Rowan County	Not Selected
Enforcement Agency	*Terminato*	Rowan County Sheriff	Not Selected
Remote Traveler Support	*Subsystem*	Rowan County_Kiosks	Not Selected
Information Service Provider	*Subsystem*	Union County	Not Selected
Enforcement Agency	*Terminato*	Union County Sheriff	Not Selected
Remote Traveler Support	*Subsystem*	Union County_Kiosks	Not Selected
Market Package: Transit Traveler Information			
Transit Management	*Subsystem*	Charlotte Transit	
Transit Vehicle Subsystem	*Subsystem*	Charlotte Transit	
Transit User	*Terminato*	Charlotte Transit	
Remote Traveler Support	*Subsystem*	Charlotte Transit_Kiosks	
Personal Information Access	*Subsystem*	User Personal Computing Devices	
Information Service Provider	*Subsystem*	Cabarrus County	Not Selected
Traffic Management	*Subsystem*	Cabarrus County	Not Selected
Remote Traveler Support	*Subsystem*	Cabarrus County_Kiosks	Not Selected
Information Service Provider	*Subsystem*	City of Charlotte	Not Selected
Traffic Management	*Subsystem*	City of Charlotte	Not Selected
Remote Traveler Support	*Subsystem*	City of Charlotte_Kiosks	Not Selected
Traffic Management	*Subsystem*	City of Concord	Not Selected
Information Service Provider	*Subsystem*	City of Gastonia	Not Selected
Traffic Management	*Subsystem*	City of Gastonia	Not Selected
Remote Traveler Support	*Subsystem*	City of Gastonia_Kiosks	Not Selected
Traffic Management	*Subsystem*	City of Marshville	Not Selected
Traffic Management	*Subsystem*	City of Mathews	Not Selected
Traffic Management	*Subsystem*	City of Monroe	Not Selected
Traffic Management	*Subsystem*	City of Pineville	Not Selected
Information Service Provider	*Subsystem*	City of Salisbury	Not Selected

Entity Name	Type	Element Name	

Market Package: Transit Traveler Information

Traffic Management	*Subsystem*	City of Salisbury	Not Selected
Remote Traveler Support	*Subsystem*	City of Salisbury_Kiosks	Not Selected
Information Service Provider	*Subsystem*	Gaston County	Not Selected
Traffic Management	*Subsystem*	Gaston County	Not Selected
Transit Management	*Subsystem*	Gaston County	Not Selected
Remote Traveler Support	*Subsystem*	Gaston County_Kiosks	Not Selected
Information Service Provider	*Subsystem*	Mecklenburg County	Not Selected
Traffic Management	*Subsystem*	Mecklenburg County	Not Selected
Remote Traveler Support	*Subsystem*	Mecklenburg County_Kiosks	Not Selected
Media	*Terminato*	Media	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Traffic Management	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Remote Traveler Support	*Subsystem*	NCDOT - Metrolina Region_Kiosks	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Statewide	Not Selected
Traffic Management	*Subsystem*	NCDOT - Statewide	Not Selected
Information Service Provider	*Subsystem*	NCDOT Divison 6	Not Selected
Traffic Management	*Subsystem*	NCDOT Divison 6	Not Selected
Remote Traveler Support	*Subsystem*	NCDOT Divison 6_Kiosks	Not Selected
Information Service Provider	*Subsystem*	Rowan County	Not Selected
Traffic Management	*Subsystem*	Rowan County	Not Selected
Remote Traveler Support	*Subsystem*	Rowan County_Kiosks	Not Selected
Transit Vehicle Subsystem	*Subsystem*	Transit Vehicles	Not Selected
Information Service Provider	*Subsystem*	Union County	Not Selected
Traffic Management	*Subsystem*	Union County	Not Selected
Remote Traveler Support	*Subsystem*	Union County_Kiosks	Not Selected
Vehicle	*Subsystem*	Vehicles	Not Selected

Market Package: Transit Vehicle Tracking

Transit Management	*Subsystem*	Charlotte Transit	
Transit Vehicle Subsystem	*Subsystem*	Charlotte Transit	
Transit Vehicle	*Terminato*	Charlotte Transit	
Information Service Provider	*Subsystem*	Gaston County	
Transit Management	*Subsystem*	Gaston County	
Transit Vehicle Subsystem	*Subsystem*	Transit Vehicles	
Location Data Source	*Terminato*		Not in Inventory
Map Update Provider	*Terminato*		Not in Inventory
Information Service Provider	*Subsystem*	Cabarrus County	Not Selected
Information Service Provider	*Subsystem*	City of Charlotte	Not Selected
Information Service Provider	*Subsystem*	City of Gastonia	Not Selected
Information Service Provider	*Subsystem*	City of Salisbury	Not Selected
Information Service Provider	*Subsystem*	Mecklenburg County	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Metrolina Region	Not Selected
Information Service Provider	*Subsystem*	NCDOT - Statewide	Not Selected
Information Service Provider	*Subsystem*	NCDOT Divison 6	Not Selected
Information Service Provider	*Subsystem*	Rowan County	Not Selected
Information Service Provider	*Subsystem*	Union County	Not Selected

Entity Name	Type	Element Name	
Market Package: Transit Vehicle Tracking			
Vehicle	*Subsystem*	Vehicles	Not Selected

Market Packages Report

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Market Packages for Region Metrolina

Market Package	Element(s)	
Advanced Railroad Grade Crossing (ATMS14) -- Existing		
	Cabarrus County	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	
	City of Charlotte_Roadside Equipment	
	City of Concord	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	
	City of Gastonia_Roadside Equipment	
	City of Marshville	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
Emergency Response (EM1) -- Existing		
	Cabarrus County	-- Not Selected
	Cabarrus County EMS	
	Cabarrus County EMS_Personnel	
	Cabarrus County Sheriff	
	Cabarrus County Sheriff_Personnel	
	Charlotte Transit	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte PD	
	City of Charlotte PD_Personnel	

Market Package	Element(s)	
	City of Concord	-- Not Selected
	City of Concord PD	
	City of Concord PD_Personnel	
	City of Gastonia	-- Not Selected
	City of Gastonia PD	
	City of Gastonia PD_Personnel	
	City of Marshville	-- Not Selected
	City of Marshville PD	
	City of Marshville PD_Personnel	
	City of Mathews	-- Not Selected
	City of Mathews PD	
	City of Mathews PD_Personnel	
	City of Monroe	-- Not Selected
	City of Monroe PD	
	City of Monroe PD_Personnel	
	City of Pineville	-- Not Selected
	City of Pineville PD	
	City of Pineville PD_Personnel	
	City of Salisbury	-- Not Selected
	City of Salisbury PD	
	City of Salisbury PD_Personnel	
	Emergency Vehicles	
	Gaston County	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County EMS	
	Mecklenburg County EMS_Personnel	
	Mecklenbury County Sheriff	
	Mecklenbury County Sheriff_Personnel	
	Media	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	
	NCDOT Divison 6_Personnel	
	Rowan County	-- Not Selected
	Rowan County EMS	
	Rowan County EMS_Personnel	
	Rowan County Sheriff	
	Rowan County Sheriff_Personnel	
	Union County	-- Not Selected
	Union County EMS	
	Union County EMS_Personnel	
	Union County Sheriff	
	Union County Sheriff_Personnel	
HAZMAT Management (CVO10) – Existing		
	Cabarrus County	-- Not Selected
	Cabarrus County EMS	
	Cabarrus County Sheriff	
	City of Charlotte	-- Not Selected

Market Package	Element(s)	
	City of Charlotte PD	
	City of Concord	-- Not Selected
	City of Concord PD	
	City of Gastonia	-- Not Selected
	City of Gastonia PD	
	City of Marshville	-- Not Selected
	City of Marshville PD	
	City of Mathews	-- Not Selected
	City of Mathews PD	
	City of Monroe	-- Not Selected
	City of Monroe PD	
	City of Pineville	-- Not Selected
	City of Pineville PD	
	City of Salisbury	-- Not Selected
	City of Salisbury PD	
	Gaston County	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County EMS	
	Mecklenbury County Sheriff	
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	
	Rowan County	-- Not Selected
	Rowan County EMS	
	Rowan County Sheriff	
	Union County	-- Not Selected
	Union County EMS	
	Union County Sheriff	
	Vehicles	-- Not Selected
Incident Management System (ATMS08) -- Existing		
	Cabarrus County	
	Cabarrus County EMS	-- Not Selected
	Cabarrus County EMS_Personnel	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County Sheriff_Personnel	-- Not Selected
	Cabarrus County_Personnel	
	Cabarrus County_Roadside Equipment	
	City of Charlotte	
	City of Charlotte PD	
	City of Charlotte PD_Personnel	
	City of Charlotte_Personnel	
	City of Charlotte_Roadside Equipment	
	City of Concord	-- Not Selected
	City of Concord PD	-- Not Selected
	City of Concord PD_Personnel	-- Not Selected
	City of Concord_Personnel	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Gastonia PD	
	City of Gastonia PD_Personnel	
	City of Gastonia_Personnel	
	City of Gastonia_Roadside Equipment	
	City of Marshville	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Marshville PD_Personnel	-- Not Selected
	City of Marshville_Personnel	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Mathews PD_Personnel	-- Not Selected
	City of Mathews_Personnel	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Monroe PD_Personnel	-- Not Selected
	City of Monroe_Personnel	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Pineville PD_Personnel	-- Not Selected
	City of Pineville_Personnel	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	
	City of Salisbury PD	-- Not Selected
	City of Salisbury PD_Personnel	-- Not Selected
	City of Salisbury_Personnel	
	City of Salisbury_Roadside Equipment	
	Emergency Vehicles	
	Gaston County	
	Gaston County_Personnel	
	Gaston County_Roadside Equipment	
	Mecklenburg County	-- Not Selected
	Mecklenburg County EMS	
	Mecklenburg County EMS_Personnel	
	Mecklenburg County_Personnel	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	Mecklenbury County Sheriff	
	Mecklenbury County Sheriff_Personnel	
	Media	-- Not Selected
	NCDOT - Metrolina Region	
	NCDOT - Metrolina Region_Personnel	
	NCDOT - Metrolina Region_Roadside Equipment	
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	
	NCDOT Divison 6_Personnel	

Market Package	Element(s)	
	NCDOT Divison 6_Roadside Equipment	
	Rowan County	
	Rowan County EMS	-- Not Selected
	Rowan County EMS_Personnel	-- Not Selected
	Rowan County Sheriff	
	Rowan County Sheriff_Personnel	
	Rowan County_Personnel	
	Rowan County_Roadside Equipment	
	Union County	-- Not Selected
	Union County EMS	-- Not Selected
	Union County EMS_Personnel	-- Not Selected
	Union County Sheriff	
	Union County Sheriff_Personnel	
	Union County_Personnel	-- Not Selected
Network Surveillance (ATMS01) -- Existing		
	Cabarrus County	
	Cabarrus County_Personnel	
	Cabarrus County_Roadside Equipment	
	City of Charlotte	
	City of Charlotte_Personnel	
	City of Charlotte_Roadside Equipment	
	City of Concord	-- Not Selected
	City of Concord_Personnel	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	
	City of Gastonia_Personnel	
	City of Gastonia_Roadside Equipment	
	City of Marshville	-- Not Selected
	City of Marshville_Personnel	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Personnel	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Personnel	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Personnel	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	
	City of Salisbury_Personnel	
	City of Salisbury_Roadside Equipment	
	Gaston County	
	Gaston County_Personnel	
	Gaston County_Roadside Equipment	
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	NCDOT - Metrolina Region	
	NCDOT - Metrolina Region_Personnel	
	NCDOT - Metrolina Region_Roadside Equipment	
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	
	NCDOT Divison 6_Personnel	
	NCDOT Divison 6_Roadside Equipment	
	Rowan County	
	Rowan County_Personnel	
	Rowan County_Roadside Equipment	
	Union County	-- Not Selected
	Union County_Personnel	-- Not Selected
Probe Surveillance (ATMS02) – Existing		
	Cabarrus County	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	
	Gaston County_Roadside Equipment	
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Vehicles	-- Not Selected
Standard Railroad Grade Crossing (ATMS13) -- Existing		

Market Packages for Region Metrolina

Market Package	Element(s)	
	Cabarrus County	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	
	City of Charlotte_Roadside Equipment	
	City of Concord	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	
	City of Gastonia_Roadside Equipment	
	City of Marshville	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
Surface Street Control (ATMS03) -- Existing		
	Cabarrus County	-- Not Selected
	Cabarrus County EMS	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County_Personnel	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte PD	-- Not Selected
	City of Charlotte_Personnel	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	
	City of Concord PD	-- Not Selected
	City of Concord_Personnel	
	City of Concord_Roadside Equipment	
	City of Gastonia	
	City of Gastonia PD	-- Not Selected
	City of Gastonia_Personnel	

Market Package	Element(s)	
	City of Gastonia_Roadside Equipment	
	City of Marshville	
	City of Marshville PD	-- Not Selected
	City of Marshville_Personnel	
	City of Marshville_Roadside Equipment	
	City of Mathews	
	City of Mathews PD	-- Not Selected
	City of Mathews_Personnel	
	City of Mathews_Roadside Equipment	
	City of Monroe	
	City of Monroe PD	-- Not Selected
	City of Monroe_Personnel	
	City of Monroe_Roadside Equipment	
	City of Pineville	
	City of Pineville PD	-- Not Selected
	City of Pineville_Personnel	
	City of Pineville_Roadside Equipment	
	City of Salisbury	
	City of Salisbury PD	-- Not Selected
	City of Salisbury_Personnel	
	City of Salisbury_Roadside Equipment	
	Gaston County	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County EMS	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	Mecklenbury County Sheriff	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Personnel	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County EMS	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Rowan County_Personnel	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Union County EMS	-- Not Selected
	Union County Sheriff	-- Not Selected
	Union County_Personnel	-- Not Selected

Transit Maintenance (APTS6) – Existing

Charlotte Transit

Market Package	Element(s)	
	Charlotte Transit_Personnel	
	Gaston County	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Transit Vehicles	-- Not Selected
Transit Passenger and Fare Management (APTS4) – Existing		
	Cabarrus County	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County_Kiosks	-- Not Selected
	Charlotte Transit	
	Charlotte Transit_Kiosks	
	Charlotte Transit_Personnel	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte PD	-- Not Selected
	City of Charlotte_Kiosks	-- Not Selected
	City of Concord PD	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia PD	-- Not Selected
	City of Gastonia_Kiosks	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury PD	-- Not Selected
	City of Salisbury_Kiosks	-- Not Selected
	Gaston County	
	Gaston County_Kiosks	
	Gaston County_Personnel	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Kiosks	-- Not Selected
	Mecklenbury County Sheriff	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Kiosks	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Kiosks	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Rowan County_Kiosks	-- Not Selected
	Transit Vehicles	
	Union County	-- Not Selected
	Union County Sheriff	-- Not Selected
	Union County_Kiosks	-- Not Selected
Transit Vehicle Tracking (APTS1) – Existing		
	Cabarrus County	-- Not Selected
	Charlotte Transit	

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Charlotte	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Salisbury	-- Not Selected
	Gaston County	
	Mecklenburg County	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	Rowan County	-- Not Selected
	Transit Vehicles	
	Union County	-- Not Selected
	Vehicles	-- Not Selected
Advanced Vehicle Lateral Control (AVSS09) -- Not Planned		
	Vehicles	-- Not Selected
Advanced Vehicle Longitudinal Control (AVSS08) -- Not Planned		
	Vehicles	-- Not Selected
Automated Highway System (AVSS11) -- Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	Rowan County	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Vehicles	-- Not Selected

Autonomous Route Guidance (ATIS3) – Not Planned

	Cabarrus County EMS	-- Not Selected
	Charlotte Transit	-- Not Selected
	City of Charlotte PD	-- Not Selected
	City of Concord PD	-- Not Selected
	City of Gastonia PD	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Salisbury PD	-- Not Selected
	Emergency Vehicles	-- Not Selected
	Mecklenburg County EMS	-- Not Selected
	Rowan County EMS	-- Not Selected
	Transit Vehicles	-- Not Selected
	Union County EMS	-- Not Selected
	User Personal Computing Devices	-- Not Selected
	Vehicles	-- Not Selected

Demand Response Transit Operations (APTS3) -- Not Planned

	Cabarrus County	-- Not Selected
	Charlotte Transit	-- Not Selected
	Charlotte Transit_Personnel	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Concord	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Marshville	-- Not Selected
	City of Mathews	-- Not Selected
	City of Monroe	-- Not Selected
	City of Pineville	-- Not Selected
	City of Salisbury	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Mecklenburg County	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	Rowan County	-- Not Selected
	Transit Vehicles	-- Not Selected
	Union County	-- Not Selected

Driver Safety Monitoring (AVSS02) -- Not Planned

	Vehicles	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
Driver Visibility Improvement (AVSS07) -- Not Planned		
	Vehicles	-- Not Selected
Dynamic Ridesharing (ATIS8) -- Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Kiosks	-- Not Selected
	Cabarrus County_Personnel	-- Not Selected
	Charlotte Transit	-- Not Selected
	Charlotte Transit_Kiosks	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Kiosks	-- Not Selected
	City of Charlotte_Personnel	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Kiosks	-- Not Selected
	City of Gastonia_Personnel	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Kiosks	-- Not Selected
	City of Salisbury_Personnel	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Kiosks	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Kiosks	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Kiosks	-- Not Selected
	NCDOT - Metrolina Region_Personnel	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Kiosks	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Kiosks	-- Not Selected
	Rowan County_Personnel	-- Not Selected
	Union County	-- Not Selected
	Union County_Kiosks	-- Not Selected
	Union County_Personnel	-- Not Selected
	User Personal Computing Devices	-- Not Selected
	Vehicles	-- Not Selected
Dynamic Route Guidance (ATIS4) -- Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Personnel	-- Not Selected
	Charlotte Transit	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Personnel	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Concord	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Personnel	-- Not Selected
	City of Marshville	-- Not Selected
	City of Mathews	-- Not Selected
	City of Monroe	-- Not Selected
	City of Pineville	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Personnel	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Personnel	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Personnel	-- Not Selected
	Union County	-- Not Selected
	Union County_Personnel	-- Not Selected
	User Personal Computing Devices	-- Not Selected
	Vehicles	-- Not Selected
Electronic Clearance (CVO03) -- Not Planned		
	Mecklenburg County	-- Not Selected
Electronic Toll Collection (ATMS10) -- Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte PD	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord PD	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia PD	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury PD	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	Gaston County	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenbury County Sheriff	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Union County	-- Not Selected
	Union County Sheriff	-- Not Selected
	Vehicles	-- Not Selected
Emissions Monitoring and Management (ATMS11) – Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Personnel	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Personnel	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord_Personnel	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Personnel	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville_Personnel	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Personnel	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Personnel	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Personnel	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Personnel	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	Media	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Personnel	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Personnel	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Union County_Personnel	-- Not Selected
Fleet Administration (CVO01) -- Not Planned		
	Cabarrus County	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Salisbury	-- Not Selected
	Gaston County	-- Not Selected
	Mecklenburg County	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	Rowan County	-- Not Selected
	Union County	-- Not Selected
	Vehicles	-- Not Selected
Freight Administration (CVO02) -- Not Planned		
	Vehicles	-- Not Selected
In Vehicle Signing (ATIS9) -- Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Vehicles	-- Not Selected

Integrated Transportation Management/Route Guidance (ATIS6) -- Not Planned

	Cabarrus County	-- Not Selected
	Cabarrus County_Personnel	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Personnel	-- Not Selected
	City of Concord	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Personnel	-- Not Selected
	City of Marshville	-- Not Selected
	City of Mathews	-- Not Selected
	City of Monroe	-- Not Selected
	City of Pineville	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Personnel	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Personnel	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Personnel	-- Not Selected
	Union County	-- Not Selected
	Union County_Personnel	-- Not Selected
	User Personal Computing Devices	-- Not Selected
	Vehicles	-- Not Selected

International Border Electronic Clearance (CVO05) -- Not Planned

	Mecklenburg County	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
Intersection Collision Avoidance (AVSS10) – Not Planned		
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Vehicles	-- Not Selected
Intersection Safety Warning (AVSS05) -- Not Planned		
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Vehicles	-- Not Selected
ITS Data Mart (AD1) – Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County EMS	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	Charlotte Transit	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte PD	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord PD	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia PD	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury PD	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County EMS	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	Mecklenbury County Sheriff	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County EMS	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Union County EMS	-- Not Selected
	Union County Sheriff	-- Not Selected

ITS Data Warehouse (AD2) – Not Planned

	Cabarrus County	-- Not Selected
	Cabarrus County EMS	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	Charlotte Transit	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte PD	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Concord PD	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia PD	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury PD	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County EMS	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	Mecklenbury County Sheriff	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County EMS	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Union County EMS	-- Not Selected
	Union County Sheriff	-- Not Selected
Lateral Safety Warning (AVSS04) -- Not Planned		
	Vehicles	-- Not Selected
Longitudinal Safety Warning (AVSS03) -- Not Planned		
	Vehicles	-- Not Selected
Mayday Support (EM3) -- Not Planned		
	Cabarrus County EMS	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	Cabarrus County EMS_Personnel	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County Sheriff_Personnel	-- Not Selected
	Cabarrus County_Kiosks	-- Not Selected
	Charlotte Transit_Kiosks	-- Not Selected
	City of Charlotte PD	-- Not Selected
	City of Charlotte PD_Personnel	-- Not Selected
	City of Charlotte_Kiosks	-- Not Selected
	City of Concord PD	-- Not Selected
	City of Concord PD_Personnel	-- Not Selected
	City of Gastonia PD	-- Not Selected
	City of Gastonia PD_Personnel	-- Not Selected
	City of Gastonia_Kiosks	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Marshville PD_Personnel	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Mathews PD_Personnel	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Monroe PD_Personnel	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Pineville PD_Personnel	-- Not Selected
	City of Salisbury PD	-- Not Selected
	City of Salisbury PD_Personnel	-- Not Selected
	City of Salisbury_Kiosks	-- Not Selected
	Gaston County_Kiosks	-- Not Selected
	Mecklenburg County EMS	-- Not Selected
	Mecklenburg County EMS_Personnel	-- Not Selected
	Mecklenburg County_Kiosks	-- Not Selected
	Mecklenbury County Sheriff	-- Not Selected
	Mecklenbury County Sheriff_Personnel	-- Not Selected
	NCDOT - Metrolina Region_Kiosks	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Kiosks	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	Rowan County EMS	-- Not Selected
	Rowan County EMS_Personnel	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Rowan County Sheriff_Personnel	-- Not Selected
	Rowan County_Kiosks	-- Not Selected
	Union County EMS	-- Not Selected
	Union County EMS_Personnel	-- Not Selected
	Union County Sheriff	-- Not Selected
	Union County Sheriff_Personnel	-- Not Selected
	Union County_Kiosks	-- Not Selected
	User Personal Computing Devices	-- Not Selected
	Vehicles	-- Not Selected

On-board CVO Safety (CVO08) -- Not Planned

	Mecklenburg County	-- Not Selected

Market Package	Element(s)	
Parking Facility Management (ATMS16) -- Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte PD	-- Not Selected
	City of Concord PD	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia PD	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury PD	-- Not Selected
	Gaston County	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenbury County Sheriff	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Union County	-- Not Selected
	Union County Sheriff	-- Not Selected
	Vehicles	-- Not Selected
Pre-Crash Restraint Deployment (AVSS06) -- Not Planned		
	Vehicles	-- Not Selected
Railroad Operations Coordination (ATMS15) -- Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
Regional Parking Management (ATMS19) -- Not Planned		
	Cabarrus County	-- Not Selected
	Charlotte Transit	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Concord	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Marshville	-- Not Selected
	City of Mathews	-- Not Selected
	City of Monroe	-- Not Selected
	City of Pineville	-- Not Selected
	City of Salisbury	-- Not Selected
	Gaston County	-- Not Selected
	Mecklenburg County	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	Rowan County	-- Not Selected
	Union County	-- Not Selected
Reversible Lane Management (ATMS17) -- Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Personnel	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Personnel	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord_Personnel	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Personnel	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Marshville_Personnel	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Personnel	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Personnel	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Personnel	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Personnel	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Personnel	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Personnel	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Union County_Personnel	-- Not Selected

Road Weather Information System (ATMS18) -- Not Planned

	Cabarrus County	-- Not Selected
	Cabarrus County_Personnel	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Personnel	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord_Personnel	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Personnel	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Marshville_Personnel	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Personnel	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Personnel	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Personnel	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Personnel	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Personnel	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Personnel	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Union County_Personnel	-- Not Selected
Roadside CVO Safety (CVO07) -- Not Planned		
	Mecklenburg County	-- Not Selected
Traffic Forecast and Demand Management (ATMS09) -- Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Personnel	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	Charlotte Transit	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Personnel	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord_Personnel	-- Not Selected

Market Package	Element(s)	
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Personnel	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville_Personnel	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Personnel	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Personnel	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Personnel	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Personnel	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Personnel	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Personnel	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Union County_Personnel	-- Not Selected

Transit Fixed-Route Operations (APTS2) -- Not Planned

	Cabarrus County	-- Not Selected
	Charlotte Transit	-- Not Selected
	Charlotte Transit_Personnel	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Concord	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Marshville	-- Not Selected
	City of Mathews	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Monroe	-- Not Selected
	City of Pineville	-- Not Selected
	City of Salisbury	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Mecklenburg County	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	Rowan County	-- Not Selected
	Transit Vehicles	-- Not Selected
	Union County	-- Not Selected
Transit Security (APTS5) -- Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County EMS	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County_Kiosks	-- Not Selected
	Charlotte Transit	-- Not Selected
	Charlotte Transit_Kiosks	-- Not Selected
	Charlotte Transit_Personnel	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte PD	-- Not Selected
	City of Charlotte_Kiosks	-- Not Selected
	City of Concord PD	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia PD	-- Not Selected
	City of Gastonia_Kiosks	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury PD	-- Not Selected
	City of Salisbury_Kiosks	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Kiosks	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County EMS	-- Not Selected
	Mecklenburg County_Kiosks	-- Not Selected
	Mecklenbury County Sheriff	-- Not Selected
	Media	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Kiosks	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Kiosks	-- Not Selected
	Rowan County	-- Not Selected

Market Package	Element(s)	
	Rowan County EMS	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Rowan County_Kiosks	-- Not Selected
	Transit Vehicles	-- Not Selected
	Union County	-- Not Selected
	Union County EMS	-- Not Selected
	Union County Sheriff	-- Not Selected
	Union County_Kiosks	-- Not Selected
Vehicle Safety Monitoring (AVSS01) – Not Planned		
	Vehicles	-- Not Selected
Virtual TMC and Smart Probe Data (ATMS12) – Not Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Vehicles	-- Not Selected
Yellow Pages and Reservation (ATIS7) – Not Planned		
	Cabarrus County	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	Cabarrus County_Kiosks	-- Not Selected
	Cabarrus County_Personnel	-- Not Selected
	Charlotte Transit_Kiosks	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte_Kiosks	-- Not Selected
	City of Charlotte_Personnel	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Kiosks	-- Not Selected
	City of Gastonia_Personnel	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Kiosks	-- Not Selected
	City of Salisbury_Personnel	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Kiosks	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Kiosks	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Kiosks	-- Not Selected
	NCDOT - Metrolina Region_Personnel	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Kiosks	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Kiosks	-- Not Selected
	Rowan County_Personnel	-- Not Selected
	Union County	-- Not Selected
	Union County_Kiosks	-- Not Selected
	Union County_Personnel	-- Not Selected
	User Personal Computing Devices	-- Not Selected
	Vehicles	-- Not Selected

Broadcast Traveler Information (ATIS1) -- Planned

	Cabarrus County	
	Cabarrus County EMS	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County_Kiosks	
	Cabarrus County_Personnel	
	Charlotte Transit	-- Not Selected
	Charlotte Transit_Kiosks	-- Not Selected
	City of Charlotte	
	City of Charlotte PD	-- Not Selected
	City of Charlotte_Kiosks	
	City of Charlotte_Personnel	
	City of Concord	-- Not Selected
	City of Concord PD	-- Not Selected

Market Package	Element(s)	
	City of Gastonia	
	City of Gastonia PD	-- Not Selected
	City of Gastonia_Kiosks	
	City of Gastonia_Personnel	
	City of Marshville	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Salisbury	
	City of Salisbury PD	-- Not Selected
	City of Salisbury_Kiosks	
	City of Salisbury_Personnel	
	Gaston County	
	Gaston County_Kiosks	
	Gaston County_Personnel	
	Mecklenburg County	
	Mecklenburg County EMS	-- Not Selected
	Mecklenburg County_Kiosks	
	Mecklenburg County_Personnel	
	Mecklenbury County Sheriff	-- Not Selected
	Media	
	NCDOT - Metrolina Region	
	NCDOT - Metrolina Region_Kiosks	
	NCDOT - Metrolina Region_Personnel	
	NCDOT - Statewide	
	NCDOT - Statewide_Personnel	
	NCDOT Divison 6	
	NCDOT Divison 6_Kiosks	
	NCDOT Divison 6_Personnel	
	Rowan County	
	Rowan County EMS	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Rowan County_Kiosks	
	Rowan County_Personnel	
	Union County	
	Union County EMS	-- Not Selected
	Union County Sheriff	-- Not Selected
	Union County_Kiosks	
	Union County_Personnel	
	User Personal Computing Devices	
	Vehicles	
CV Administrative Processes (CVO04) -- Planned		
	Cabarrus County Sheriff	-- Not Selected
	City of Charlotte PD	-- Not Selected

Market Package	Element(s)	
	City of Concord PD	-- Not Selected
	City of Gastonia PD	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Salisbury PD	-- Not Selected
	Mecklenburg County	
	Mecklenbury County Sheriff	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Union County Sheriff	-- Not Selected
Emergency Routing (EM2) -- Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County EMS	
	Cabarrus County EMS_Personnel	
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County Sheriff_Personnel	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	
	City of Charlotte PD	
	City of Charlotte PD_Personnel	
	City of Charlotte_Roadside Equipment	
	City of Concord	-- Not Selected
	City of Concord PD	
	City of Concord PD_Personnel	
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	
	City of Gastonia PD	
	City of Gastonia PD_Personnel	
	City of Gastonia_Roadside Equipment	
	City of Marshville	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Marshville PD_Personnel	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Mathews PD_Personnel	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Monroe PD_Personnel	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Pineville PD_Personnel	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury PD	

Market Package	Element(s)	
	City of Salisbury PD_Personnel	
	City of Salisbury_Roadside Equipment	-- Not Selected
	Emergency Vehicles	
	Gaston County	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County EMS	
	Mecklenburg County EMS_Personnel	
	Mecklenburg County_Roadside Equipment	-- Not Selected
	Mecklenbury County Sheriff	
	Mecklenbury County Sheriff_Personnel	
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	
	NCDOT Divison 6_Personnel	
	NCDOT Divison 6_Roadside Equipment	
	Rowan County	-- Not Selected
	Rowan County EMS	
	Rowan County EMS_Personnel	
	Rowan County Sheriff	
	Rowan County Sheriff_Personnel	
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Union County EMS	
	Union County EMS_Personnel	
	Union County Sheriff	
	Union County Sheriff_Personnel	
	Vehicles	-- Not Selected
Freeway Control (ATMS04) -- Planned		
	Cabarrus County	
	Cabarrus County_Personnel	
	Cabarrus County_Roadside Equipment	
	City of Charlotte	
	City of Charlotte_Personnel	
	City of Charlotte_Roadside Equipment	
	City of Concord	-- Not Selected
	City of Concord_Personnel	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	
	City of Gastonia_Personnel	
	City of Gastonia_Roadside Equipment	
	City of Marshville	-- Not Selected
	City of Marshville_Personnel	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Personnel	-- Not Selected

Market Package	Element(s)	
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Personnel	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Personnel	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	
	City of Salisbury_Personnel	
	City of Salisbury_Roadside Equipment	
	Gaston County	
	Gaston County_Personnel	
	Gaston County_Roadside Equipment	
	Mecklenburg County	
	Mecklenburg County_Personnel	
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	
	NCDOT - Metrolina Region_Personnel	
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	
	NCDOT - Statewide_Personnel	
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	
	NCDOT Divison 6_Personnel	
	NCDOT Divison 6_Roadside Equipment	
	Rowan County	
	Rowan County_Personnel	
	Rowan County_Roadside Equipment	
	Union County	
	Union County_Personnel	
HOV Lane Management (ATMS05) – Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	
	City of Charlotte PD	-- Not Selected
	City of Charlotte_Roadside Equipment	
	City of Concord	-- Not Selected
	City of Concord PD	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia PD	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews PD	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury PD	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	Mecklenbury County Sheriff	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	
	NCDOT Divison 6_Roadside Equipment	
	Rowan County	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	-- Not Selected
	Union County Sheriff	-- Not Selected
Interactive Traveler Information (ATIS2) -- Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County EMS	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County_Kiosks	-- Not Selected
	Cabarrus County_Personnel	-- Not Selected
	Charlotte Transit	-- Not Selected
	Charlotte Transit_Kiosks	-- Not Selected
	City of Charlotte	-- Not Selected
	City of Charlotte PD	-- Not Selected
	City of Charlotte_Kiosks	-- Not Selected
	City of Charlotte_Personnel	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord PD	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia PD	-- Not Selected
	City of Gastonia_Kiosks	-- Not Selected
	City of Gastonia_Personnel	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews PD	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Monroe	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury PD	-- Not Selected
	City of Salisbury_Kiosks	-- Not Selected
	City of Salisbury_Personnel	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Kiosks	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County EMS	-- Not Selected
	Mecklenburg County_Kiosks	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	Mecklenbury County Sheriff	-- Not Selected
	Media	-- Not Selected
	NCDOT - Metrolina Region	
	NCDOT - Metrolina Region_Kiosks	
	NCDOT - Metrolina Region_Personnel	
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Kiosks	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County EMS	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Rowan County_Kiosks	-- Not Selected
	Rowan County_Personnel	-- Not Selected
	Transit Vehicles	-- Not Selected
	Union County	-- Not Selected
	Union County EMS	-- Not Selected
	Union County Sheriff	-- Not Selected
	Union County_Kiosks	-- Not Selected
	Union County_Personnel	-- Not Selected
	User Personal Computing Devices	
	Vehicles	-- Not Selected
ISP Based Route Guidance (ATIS5) -- Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Kiosks	-- Not Selected
	Cabarrus County_Personnel	-- Not Selected
	Charlotte Transit	-- Not Selected
	Charlotte Transit_Kiosks	-- Not Selected
	City of Charlotte	
	City of Charlotte_Kiosks	
	City of Charlotte_Personnel	
	City of Concord	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Gastonia	
	City of Gastonia_Kiosks	
	City of Gastonia_Personnel	
	City of Marshville	-- Not Selected
	City of Mathews	-- Not Selected
	City of Monroe	-- Not Selected
	City of Pineville	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Kiosks	-- Not Selected
	City of Salisbury_Personnel	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Kiosks	-- Not Selected
	Gaston County_Personnel	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Kiosks	-- Not Selected
	Mecklenburg County_Personnel	-- Not Selected
	NCDOT - Metrolina Region	
	NCDOT - Metrolina Region_Kiosks	
	NCDOT - Metrolina Region_Personnel	
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Kiosks	-- Not Selected
	NCDOT Divison 6_Personnel	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Kiosks	-- Not Selected
	Rowan County_Personnel	-- Not Selected
	Union County	-- Not Selected
	Union County_Kiosks	-- Not Selected
	Union County_Personnel	-- Not Selected
	User Personal Computing Devices	
	Vehicles	-- Not Selected
Multi-modal Coordination (APTS7) -- Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Roadside Equipment	-- Not Selected
	Charlotte Transit	
	City of Charlotte	
	City of Charlotte_Roadside Equipment	
	City of Concord	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	
	City of Gastonia_Roadside Equipment	
	City of Marshville	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe_Roadside Equipment	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Pineville	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	
	NCDOT Divison 6_Roadside Equipment	
	Rowan County	-- Not Selected
	Rowan County_Roadside Equipment	-- Not Selected
	Transit Vehicles	
	Union County	-- Not Selected
Regional Traffic Control (ATMS07) -- Planned		
	Cabarrus County	
	Cabarrus County_Personnel	
	Cabarrus County_Roadside Equipment	-- Not Selected
	City of Charlotte	
	City of Charlotte_Personnel	
	City of Charlotte_Roadside Equipment	-- Not Selected
	City of Concord	-- Not Selected
	City of Concord_Personnel	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Personnel	-- Not Selected
	City of Gastonia_Roadside Equipment	-- Not Selected
	City of Marshville	-- Not Selected
	City of Marshville_Personnel	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews_Personnel	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	
	City of Monroe_Personnel	
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville_Personnel	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	
	City of Salisbury_Personnel	
	City of Salisbury_Roadside Equipment	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Personnel	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	Gaston County_Roadside Equipment	-- Not Selected
	Mecklenburg County	
	Mecklenburg County_Personnel	
	Mecklenburg County_Roadside Equipment	-- Not Selected
	NCDOT - Metrolina Region	
	NCDOT - Metrolina Region_Personnel	
	NCDOT - Metrolina Region_Roadside Equipment	-- Not Selected
	NCDOT - Statewide	
	NCDOT - Statewide_Personnel	
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	
	NCDOT Divison 6_Personnel	
	NCDOT Divison 6_Roadside Equipment	-- Not Selected
	Rowan County	
	Rowan County_Personnel	
	Rowan County_Roadside Equipment	-- Not Selected
	Union County	
	Union County_Personnel	
Traffic Information Dissemination (ATMS06) -- Planned		
	Cabarrus County	
	Cabarrus County EMS	-- Not Selected
	Cabarrus County Sheriff	-- Not Selected
	Cabarrus County_Personnel	
	Cabarrus County_Roadside Equipment	
	Charlotte Transit	-- Not Selected
	City of Charlotte	
	City of Charlotte PD	-- Not Selected
	City of Charlotte_Personnel	
	City of Charlotte_Roadside Equipment	
	City of Concord	-- Not Selected
	City of Concord PD	-- Not Selected
	City of Concord_Personnel	-- Not Selected
	City of Concord_Roadside Equipment	-- Not Selected
	City of Gastonia	
	City of Gastonia PD	-- Not Selected
	City of Gastonia_Personnel	
	City of Gastonia_Roadside Equipment	
	City of Marshville	-- Not Selected
	City of Marshville PD	-- Not Selected
	City of Marshville_Personnel	-- Not Selected
	City of Marshville_Roadside Equipment	-- Not Selected
	City of Mathews	-- Not Selected
	City of Mathews PD	-- Not Selected
	City of Mathews_Personnel	-- Not Selected
	City of Mathews_Roadside Equipment	-- Not Selected
	City of Monroe	-- Not Selected
	City of Monroe PD	-- Not Selected
	City of Monroe_Personnel	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Monroe_Roadside Equipment	-- Not Selected
	City of Pineville	-- Not Selected
	City of Pineville PD	-- Not Selected
	City of Pineville_Personnel	-- Not Selected
	City of Pineville_Roadside Equipment	-- Not Selected
	City of Salisbury	
	City of Salisbury PD	-- Not Selected
	City of Salisbury_Personnel	
	City of Salisbury_Roadside Equipment	
	Gaston County	
	Gaston County_Personnel	
	Gaston County_Roadside Equipment	
	Mecklenburg County	
	Mecklenburg County EMS	-- Not Selected
	Mecklenburg County_Personnel	
	Mecklenburg County_Roadside Equipment	
	Mecklenbury County Sheriff	-- Not Selected
	Media	-- Not Selected
	NCDOT - Metrolina Region	
	NCDOT - Metrolina Region_Personnel	
	NCDOT - Metrolina Region_Roadside Equipment	
	NCDOT - Statewide	-- Not Selected
	NCDOT - Statewide_Personnel	-- Not Selected
	NCDOT - Statewide_Roadside Equipment	-- Not Selected
	NCDOT Divison 6	
	NCDOT Divison 6_Personnel	
	NCDOT Divison 6_Roadside Equipment	
	Rowan County	
	Rowan County EMS	-- Not Selected
	Rowan County Sheriff	-- Not Selected
	Rowan County_Personnel	
	Rowan County_Roadside Equipment	
	Union County	-- Not Selected
	Union County EMS	-- Not Selected
	Union County Sheriff	-- Not Selected
	Union County_Personnel	-- Not Selected
Transit Traveler Information (APTS8) -- Planned		
	Cabarrus County	-- Not Selected
	Cabarrus County_Kiosks	-- Not Selected
	Charlotte Transit	
	Charlotte Transit_Kiosks	
	City of Charlotte	-- Not Selected
	City of Charlotte_Kiosks	-- Not Selected
	City of Concord	-- Not Selected
	City of Gastonia	-- Not Selected
	City of Gastonia_Kiosks	-- Not Selected
	City of Marshville	-- Not Selected
	City of Mathews	-- Not Selected

Market Packages for Region Metrolina

Market Package	Element(s)	
	City of Monroe	-- Not Selected
	City of Pineville	-- Not Selected
	City of Salisbury	-- Not Selected
	City of Salisbury_Kiosks	-- Not Selected
	Gaston County	-- Not Selected
	Gaston County_Kiosks	-- Not Selected
	Mecklenburg County	-- Not Selected
	Mecklenburg County_Kiosks	-- Not Selected
	Media	-- Not Selected
	NCDOT - Metrolina Region	-- Not Selected
	NCDOT - Metrolina Region_Kiosks	-- Not Selected
	NCDOT - Statewide	-- Not Selected
	NCDOT Divison 6	-- Not Selected
	NCDOT Divison 6_Kiosks	-- Not Selected
	Rowan County	-- Not Selected
	Rowan County_Kiosks	-- Not Selected
	Transit Vehicles	-- Not Selected
	Union County	-- Not Selected
	Union County_Kiosks	-- Not Selected
	User Personal Computing Devices	
	Vehicles	-- Not Selected

Relevant Standards Activities

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Standards for Region Metrolina

Organization	Standard Name	Document ID
SAE	Advanced Traveler Information System (ATIS) Data Dictionary	J2353
SAE	Advanced Traveler Information System (ATIS) Message Set	J2354
EIA/CEA	Data Radio Channel (DARC) System	EIA-794
SAE	ISP-Vehicle Location Referencing Message Profiles	J1746
ITE	Message Set for External TMC Communication (MS/ETMCC)	TM 2.01
IEEE	Message Sets for DSRC ETTM & CVO	1455
AASHTO	NTCIP - Application Profile for File Transfer Protocol (FTP)	2303
AASHTO	NTCIP - Application Profile for Simple Transportation Management Framework (STMF)	2301
AASHTO	NTCIP - Application Profile for Trivial File Transfer Protocol	2302
AASHTO	NTCIP - Applications Profile for Common Object Request Broker Architecture (CORBA)	2305
AASHTO	NTCIP - Applications Profile for Data Exchange ASN.1 (DATEX)	2304
AASHTO	NTCIP - Base Standard: Octet Encoding Rules (OER)	1102

Standards for Region Metrolina

Organization	Standard Name	Document ID
AASHTO	NTCIP - Class B Profile	2001
AASHTO	NTCIP - Data Collection & Monitoring Devices	1206
AASHTO	NTCIP - Data Dictionary for Closed Circuit Television (CCTV)	1205
AASHTO	NTCIP - Global Object Definitions	1201
AASHTO	NTCIP - Internet (TCP/IP and UDP/IP) Transport Profile	2202
AASHTO	NTCIP - Object Definitions for Actuated Traffic Signal Controller Units	1202
AASHTO	NTCIP - Object Definitions for Dynamic Message Signs	1203
AASHTO	NTCIP - Object Definitions for Environmental Sensor Stations & Roadside Weather Information System	1204
AASHTO	NTCIP - Object Definitions for Video Switches	1208
AASHTO	NTCIP - Point to Multi-Point Protocol Using RS-232 Subnetwork Profile	2101
AASHTO	NTCIP - Ramp Meter Controller Objects	1207
AASHTO	NTCIP - Simple Transportation Management Framework (STMF)	1101
AASHTO	NTCIP - Simple Transportation Management Protocol (STMP)	1103

Standards for Region Metrolina

Organization	Standard Name	Document ID
AASHTO	NTCIP - Subnetwork Profile for Ethernet	2104
AASHTO	NTCIP - Subnetwork Profile for Point-to-Point Protocol using RS 232	2103
AASHTO	NTCIP - Transportation System Sensor Objects	1209
SAE	On-Board Land Vehicle Mayday Reporting Interface	J2313
SAE	Standard for ATIS Message Sets Delivered Over Bandwidth Restricted Media	J2369
IEEE	Standard for Common Incident Management Message Sets (IMMS) for use by EMCs	P1512
ITE	Standard for Functional Level Traffic Management Data Dictionary (TMDD)	TM 1.03
ASTM	Standard Specification for DSRC - Data Link Layer	Draft Z7633Z
ASTM	Standard Specification for DSRC - Physical Layer 902-928 MHz	PS 111-98
EIA/CEA	Subcarrier Traffic Information Channel (STIC) System	EIA-795
ITE	TCIP - Common Public Transportation (CPT) Business Area Standard	1401
ITE	TCIP - Control Center (CC) Business Area Standard	1407
ITE	TCIP - Fare Collection (FC) Business Area Standard	1408

Standards for Region Metrolina

Organization	Standard Name	Document ID
ITE	TCIP - Incident Management (IM) Business Area Standard	1402
ITE	TCIP - Onboard (OB) Business Area Standard	1406
ITE	TCIP - Passenger Information (PI) Business Area Standard	1403
ITE	TCIP - Scheduling/Runcutting (SCH) Business Area Standard	1404
ITE	TCIP - Spatial Representation (SP) Business Area Standard	1405
ITE	TCIP - Traffic Management (TM) Business Area Standard	TS 3.TM

Stakeholders Report

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Stakeholder	Description
Mecklenburg County	
	Associated Element: Emergency Vehicles
	Associated Element: Mecklenbury County Sheriff_Personnel
	Associated Element: Mecklenbury County Sheriff
	Associated Element: Mecklenburg County
	Associated Element: Mecklenburg County EMS_Personnel
	Associated Element: Mecklenburg County EMS
	Associated Element: Mecklenburg County_Kiosks
	Associated Element: Mecklenburg County_Roadside Equipment
	Associated Element: Mecklenburg County_Personnel
Metrolina Region	
	Associated Element: NCDOT Divison 6_Personnel
	Associated Element: NCDOT Divison 6
	Associated Element: NCDOT Divison 6_Roadside Equipment
	Associated Element: NCDOT Divison 6_Kiosks
	Associated Element: Emergency Vehicles
City of Charlotte	
	Associated Element: City of Charlotte
	Associated Element: City of Charlotte PD
	Associated Element: Charlotte Transit_Kiosks
	Associated Element: Charlotte Transit_Personnel
	Associated Element: City of Charlotte_Kiosks
	Associated Element: Emergency Vehicles
	Associated Element: Transit Vehicles
	Associated Element: City of Charlotte PD_Personnel
	Associated Element: City of Charlotte_Roadside Equipment
	Associated Element: City of Charlotte_Personnel
	Associated Element: Charlotte Transit
City of Gastonia	
	Associated Element: City of Gastonia_Kiosks
	Associated Element: City of Gastonia_Personnel
	Associated Element: City of Gastonia_Roadside Equipment
	Associated Element: City of Gastonia
	Associated Element: City of Gastonia PD_Personnel
	Associated Element: Emergency Vehicles
	Associated Element: City of Gastonia PD
Union County	

Stakeholder	Description
	Associated Element: Emergency Vehicles *Associated Element:* Union County_Kiosks *Associated Element:* Union County *Associated Element:* Union County_Personnel *Associated Element:* Union County Sheriff *Associated Element:* Union County Sheriff_Personnel
City of Monroe	
	Associated Element: City of Monroe PD_Personnel *Associated Element:* City of Monroe PD *Associated Element:* City of Monroe_Roadside Equipment *Associated Element:* City of Monroe_Personnel *Associated Element:* City of Monroe *Associated Element:* Emergency Vehicles
Cabarrus County	
	Associated Element: Cabarrus County EMS_Personnel *Associated Element:* Cabarrus County Sheriff_Personnel *Associated Element:* Cabarrus County EMS *Associated Element:* Emergency Vehicles *Associated Element:* Cabarrus County *Associated Element:* Cabarrus County Sheriff *Associated Element:* Cabarrus County_Kiosks *Associated Element:* Cabarrus County_Roadside Equipment *Associated Element:* Cabarrus County_Personnel
Rowan County	
	Associated Element: Rowan County_Kiosks *Associated Element:* Rowan County_Personnel *Associated Element:* Rowan County_Roadside Equipment *Associated Element:* Rowan County EMS_Personnel *Associated Element:* Union County EMS_Personnel *Associated Element:* Rowan County Sheriff_Personnel *Associated Element:* Emergency Vehicles *Associated Element:* Rowan County *Associated Element:* Union County EMS *Associated Element:* Rowan County EMS *Associated Element:* Rowan County Sheriff
City of Salisbury	
	Associated Element: Emergency Vehicles *Associated Element:* City of Salisbury *Associated Element:* City of Salisbury PD *Associated Element:* City of Salisbury_Kiosks *Associated Element:* City of Salisbury_Roadside Equipment *Associated Element:* City of Salisbury PD_Personnel *Associated Element:* City of Salisbury_Personnel

Stakeholder	Description
City of Concord	
	Associated Element: Emergency Vehicles
	Associated Element: City of Concord_Personnel
	Associated Element: City of Concord PD_Personnel
	Associated Element: City of Concord PD
	Associated Element: City of Concord_Roadside Equipment
	Associated Element: City of Concord
NCDOT	
	Associated Element: NCDOT - Metrolina Region_Kiosks
	Associated Element: NCDOT - Metrolina Region_Roadside Equipment
	Associated Element: NCDOT - Statewide_Personnel
	Associated Element: NCDOT - Metrolina Region
	Associated Element: NCDOT - Metrolina Region_Personnel
	Associated Element: NCDOT - Statewide_Roadside Equipment
	Associated Element: NCDOT - Statewide
City of Pineville	
	Associated Element: City of Pineville_Roadside Equipment
	Associated Element: City of Pineville PD
	Associated Element: City of Pineville_Personnel
	Associated Element: City of Pineville PD_Personnel
	Associated Element: City of Pineville
	Associated Element: Emergency Vehicles
City of Marshville	
	Associated Element: City of Marshville_Roadside Equipment
	Associated Element: City of Marshville PD_Personnel
	Associated Element: City of Marshville_Personnel
	Associated Element: City of Marshville PD
	Associated Element: City of Marshville
	Associated Element: Emergency Vehicles
City of Mathews	
	Associated Element: City of Mathews
	Associated Element: Emergency Vehicles
	Associated Element: City of Mathews_Personnel
	Associated Element: City of Mathews_Roadside Equipment
	Associated Element: City of Mathews PD_Personnel
	Associated Element: City of Mathews PD
Gaston County	
	Associated Element: Gaston County

Stakeholder	Description
	Associated Element: Gaston County_Kiosks
	Associated Element: Gaston County_Personnel
	Associated Element: Transit Vehicles
	Associated Element: Gaston County_Roadside Equipment

Regional Architecture: Metrolina

FlowName: current network conditions **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County EMS

In Regional Architecture?: True

FlowName: emergency traffic control response **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County EMS

In Regional Architecture?: True

FlowName: incident information **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County EMS

In Regional Architecture?: True

FlowName: incident information request **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County EMS

In Regional Architecture?: True

FlowName: resource deployment status **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County EMS

In Regional Architecture?: True

FlowName: current network conditions **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County Sheriff

In Regional Architecture?: True

FlowName: incident information **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County Sheriff

In Regional Architecture?: True

FlowName: incident information request **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County Sheriff

In Regional Architecture?: True

FlowName: resource deployment status **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County Sheriff

In Regional Architecture?: True

FlowName: broadcast information **Flow Status:** Planned

Source: Cabarrus County

Destination: Cabarrus County_Kiosks

In Regional Architecture?: True

FlowName: ISP operating parameters **Flow Status:** Planned

Source: Cabarrus County

Destination: Cabarrus County_Personnel

In Regional Architecture?: True

FlowName: traffic operator data **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County_Personnel

In Regional Architecture?: True

FlowName: freeway control data **Flow Status:** Planned

Source: Cabarrus County

Destination: Cabarrus County_Roadside Equipment

In Regional Architecture?: True

FlowName: roadway information system data **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County_Roadside Equipment

In Regional Architecture?: True

FlowName: sensor and surveillance control **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County_Roadside Equipment

In Regional Architecture?: True

FlowName: signal control data **Flow Status:** Existing

Source: Cabarrus County

Destination: Cabarrus County_Roadside Equipment

In Regional Architecture?: True

FlowName: request transit information **Flow Status:** Planned

Source: Cabarrus County

Destination: Charlotte Transit

In Regional Architecture?: True

FlowName: traffic control priority status **Flow Status:** Planned

Source: Cabarrus County

Destination: Charlotte Transit

In Regional Architecture?: True

FlowName: traffic information for transit **Flow Status:** Planned

Source: Cabarrus County

Destination: Charlotte Transit

In Regional Architecture?: True

FlowName: transit information request **Flow Status:** Existing

Source: Cabarrus County

Destination: Charlotte Transit

In Regional Architecture?: True

FlowName: broadcast information **Flow Status:** Planned

Source: Cabarrus County

Destination: Charlotte Transit_Kiosks

In Regional Architecture?: True

FlowName: ISP coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Charlotte

In Regional Architecture?: True

FlowName: logged special vehicle route **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Charlotte

In Regional Architecture?: True

FlowName: request for traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Charlotte

In Regional Architecture?: True

FlowName: road network use **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Charlotte

In Regional Architecture?: True

FlowName: traffic control coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Charlotte

In Regional Architecture?: True

FlowName: traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Charlotte

In Regional Architecture?: True

FlowName: traffic information coordination **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Charlotte

In Regional Architecture?: True

FlowName: current network conditions **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Charlotte PD

In Regional Architecture?: True

FlowName: emergency traffic control response **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Charlotte PD

In Regional Architecture?: True

FlowName: incident information **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Charlotte PD

In Regional Architecture?: True

FlowName: incident information request **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Charlotte PD

In Regional Architecture?: True

FlowName: resource deployment status **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Charlotte PD

In Regional Architecture?: True

FlowName: broadcast information **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Charlotte_Kiosks

In Regional Architecture?: True

FlowName: trip plan **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Charlotte_Kiosks

In Regional Architecture?: True

FlowName: logged special vehicle route **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Concord

In Regional Architecture?: True

FlowName: request for traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Concord

In Regional Architecture?: True

FlowName: road network use **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Concord

In Regional Architecture?: True

FlowName: traffic control coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Concord

In Regional Architecture?: True

FlowName: traffic information coordination **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Concord

In Regional Architecture?: True

FlowName: current network conditions **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Concord PD

In Regional Architecture?: True

FlowName: emergency traffic control response **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Concord PD

In Regional Architecture?: True

FlowName: incident information **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Concord PD

In Regional Architecture?: True

FlowName: incident information request **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Concord PD

In Regional Architecture?: True

FlowName: resource deployment status **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Concord PD

In Regional Architecture?: True

FlowName: ISP coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Gastonia

In Regional Architecture?: True

FlowName: logged special vehicle route **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Gastonia

In Regional Architecture?: True

FlowName: request for traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Gastonia

In Regional Architecture?: True

FlowName: road network use **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Gastonia

In Regional Architecture?: True

FlowName: traffic control coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Gastonia

In Regional Architecture?: True

FlowName: traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Gastonia

In Regional Architecture?: True

FlowName: traffic information coordination **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Gastonia

In Regional Architecture?: True

FlowName: broadcast information **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Gastonia_Kiosks

In Regional Architecture?: True

FlowName: trip plan **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Gastonia_Kiosks

In Regional Architecture?: True

FlowName: ISP coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Salisbury

In Regional Architecture?: True

FlowName: logged special vehicle route **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury

In Regional Architecture?: True

FlowName: request for traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury

In Regional Architecture?: True

FlowName: road network use **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury

In Regional Architecture?: True

FlowName: traffic control coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Salisbury

In Regional Architecture?: True

FlowName: traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury

In Regional Architecture?: True

FlowName: traffic information coordination **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury

In Regional Architecture?: True

FlowName: current network conditions **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury PD

In Regional Architecture?: True

FlowName: emergency traffic control response **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury PD

In Regional Architecture?: True

FlowName: incident information **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury PD

In Regional Architecture?: True

FlowName: incident information request **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury PD

In Regional Architecture?: True

FlowName: resource deployment status **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury PD

In Regional Architecture?: True

FlowName: broadcast information **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Salisbury_Kiosks

In Regional Architecture?: True

FlowName: freeway control data **Flow Status:** Planned

Source: Cabarrus County

Destination: City of Salisbury_Roadside Equipment

In Regional Architecture?: True

FlowName: hri control data **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury_Roadside Equipment

In Regional Architecture?: True

FlowName: hri request **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury_Roadside Equipment

In Regional Architecture?: True

FlowName: roadway information system data **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury_Roadside Equipment

In Regional Architecture?: True

FlowName: sensor and surveillance control **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury_Roadside Equipment

In Regional Architecture?: True

FlowName: signal control data **Flow Status:** Existing

Source: Cabarrus County

Destination: City of Salisbury_Roadside Equipment

In Regional Architecture?: True

FlowName: ISP coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: Gaston County

In Regional Architecture?: True

FlowName: logged special vehicle route **Flow Status:** Existing

Source: Cabarrus County

Destination: Gaston County

In Regional Architecture?: True

FlowName: request for traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: Gaston County

In Regional Architecture?: True

FlowName: road network use **Flow Status:** Existing

Source: Cabarrus County

Destination: Gaston County

In Regional Architecture?: True

FlowName: traffic control coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: Gaston County

In Regional Architecture?: True

FlowName: traffic control priority status **Flow Status:** Planned

Source: Cabarrus County

Destination: Gaston County

In Regional Architecture?: True

FlowName: traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: Gaston County

In Regional Architecture?: True

FlowName: traffic information coordination **Flow Status:** Existing

Source: Cabarrus County

Destination: Gaston County

In Regional Architecture?: True

FlowName: traffic information for transit **Flow Status:** Planned

Source: Cabarrus County

Destination: Gaston County

In Regional Architecture?: True

FlowName: transit information request **Flow Status:** Existing

Source: Cabarrus County

Destination: Gaston County

In Regional Architecture?: True

FlowName: broadcast information **Flow Status:** Planned

Source: Cabarrus County

Destination: Gaston County_Kiosks

In Regional Architecture?: True

FlowName: ISP coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: Mecklenburg County

In Regional Architecture?: True

FlowName: logged special vehicle route **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County

In Regional Architecture?: True

FlowName: request for traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County

In Regional Architecture?: True

FlowName: road network use **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County

In Regional Architecture?: True

FlowName: traffic control coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: Mecklenburg County

In Regional Architecture?: True

FlowName: traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County

In Regional Architecture?: True

FlowName: traffic information coordination **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County

In Regional Architecture?: True

FlowName: current network conditions **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County EMS

In Regional Architecture?: True

FlowName: emergency traffic control response **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County EMS

In Regional Architecture?: True

FlowName: incident information **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County EMS

In Regional Architecture?: True

FlowName: incident information request **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County EMS

In Regional Architecture?: True

FlowName: resource deployment status **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County EMS

In Regional Architecture?: True

FlowName: broadcast information **Flow Status:** Planned

Source: Cabarrus County

Destination: Mecklenburg County_Kiosks

In Regional Architecture?: True

FlowName: freeway control data **Flow Status:** Planned

Source: Cabarrus County

Destination: Mecklenburg County_Roadside Equipment

In Regional Architecture?: True

FlowName: hri control data **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County_Roadside Equipment

In Regional Architecture?: True

FlowName: hri request **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County_Roadside Equipment

In Regional Architecture?: True

FlowName: roadway information system data **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County_Roadside Equipment

In Regional Architecture?: True

FlowName: sensor and surveillance control **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County_Roadside Equipment

In Regional Architecture?: True

FlowName: signal control data **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenburg County_Roadside Equipment

In Regional Architecture?: True

FlowName: current network conditions **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenbury County Sheriff

In Regional Architecture?: True

FlowName: emergency traffic control response **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenbury County Sheriff

In Regional Architecture?: True

FlowName: incident information **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenbury County Sheriff

In Regional Architecture?: True

FlowName: incident information request **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenbury County Sheriff

In Regional Architecture?: True

FlowName: resource deployment status **Flow Status:** Existing

Source: Cabarrus County

Destination: Mecklenbury County Sheriff

In Regional Architecture?: True

FlowName: traffic information for media **Flow Status:** Planned

Source: Cabarrus County

Destination: Media

In Regional Architecture?: True

FlowName: traveler information for media **Flow Status:** Planned

Source: Cabarrus County

Destination: Media

In Regional Architecture?: True

FlowName: fare and price information **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT - Metrolina Region

In Regional Architecture?: True

FlowName: ISP coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT - Metrolina Region

In Regional Architecture?: True

FlowName: logged special vehicle route **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT - Metrolina Region

In Regional Architecture?: True

FlowName: request fare and price information **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT - Metrolina Region

In Regional Architecture?: True

FlowName: request for traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT - Metrolina Region

In Regional Architecture?: True

FlowName: road network use **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT - Metrolina Region

In Regional Architecture?: True

FlowName: traffic control coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT - Metrolina Region

In Regional Architecture?: True

FlowName: traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT - Metrolina Region

In Regional Architecture?: True

FlowName: traffic information coordination **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT - Metrolina Region

In Regional Architecture?: True

FlowName: broadcast information **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT - Metrolina Region_Kiosks

In Regional Architecture?: True

FlowName: traveler information **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT - Metrolina Region_Kiosks

In Regional Architecture?: True

FlowName: trip plan **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT - Metrolina Region_Kiosks

In Regional Architecture?: True

FlowName: ISP coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT - Statewide

In Regional Architecture?: True

FlowName: logged special vehicle route **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT - Statewide

In Regional Architecture?: True

FlowName: request for traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT - Statewide

In Regional Architecture?: True

FlowName: road network use **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT - Statewide

In Regional Architecture?: True

FlowName: traffic control coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT - Statewide

In Regional Architecture?: True

FlowName: traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT - Statewide

In Regional Architecture?: True

FlowName: traffic information coordination **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT - Statewide

In Regional Architecture?: True

FlowName: current network conditions **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: emergency traffic control response **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: incident information **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: incident information request **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: ISP coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: logged special vehicle route **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: request for traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: resource deployment status **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: road network use **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: traffic control coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: traffic information coordination **Flow Status:** Existing

Source: Cabarrus County

Destination: NCDOT Divison 6

In Regional Architecture?: True

FlowName: broadcast information **Flow Status:** Planned

Source: Cabarrus County

Destination: NCDOT Divison 6_Kiosks

In Regional Architecture?: True

FlowName: ISP coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: Rowan County

In Regional Architecture?: True

FlowName: logged special vehicle route **Flow Status:** Existing

Source: Cabarrus County

Destination: Rowan County

In Regional Architecture?: True

FlowName: request for traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: Rowan County

In Regional Architecture?: True

FlowName: road network use **Flow Status:** Existing

Source: Cabarrus County

Destination: Rowan County

In Regional Architecture?: True

FlowName: traffic control coordination **Flow Status:** Planned

Source: Cabarrus County

Destination: Rowan County

In Regional Architecture?: True

FlowName: traffic information **Flow Status:** Existing

Source: Cabarrus County

Destination: Rowan County

In Regional Architecture?: True

FlowName: traffic information coordination **Flow Status:** Existing

Source: Cabarrus County

Destination: Rowan County

In Regional Architecture?: True