

#### North Central Texas Council Of Governments

DATE: August 1, 2016

TO: Surface Transportation Technical Committee

**Public Works Directors** 

FROM: Michael Morris, P.E.

Director of Transportation

SUBJECT: Memorandum of Understanding between Regional Intelligent Transportation

System Partners

Please find attached (see Attachment 1) the Memorandum of Understanding (MOU) between Dallas-Fort Worth Regional Intelligent Transportation System (ITS) partners. This MOU outlines the roles and responsibilities of partner agencies with respect to the development of multiagency communication network for data and video sharing. The purpose of this MOU is to confirm an entity's interest and intent to share communication media, data, and video with regional partners.

This MOU was drafted as a next step in the maturing of our regions' transportation system through integrated data and video sharing between partner agencies. As you are aware, the North Central Texas Council of Governments (NCTCOG) is responsible for the development and maintenance of the Regional ITS Architecture. The architecture is a blueprint for transportation integration and technological advancement through agreements and implementation. In addition, Mobility 2040: The Metropolitan Transportation Plan for North Central Texas (Mobility 2040) was recently adopted by the Regional Transportation Council. One policy outlined in the plan requires all traffic operations systems, between public-sector entities, to be integrated to share data and video. Both the Regional ITS Architecture and Mobility 2040 stress the importance of sharing data and video among regional partners to facilitate successful operation of the region's transportation facilities. The attached MOU initiates the sharing of data and video between multiple partner agencies under one agreement.

The MOU further establishes a Regional Network Committee comprised of representatives from the entities executing the MOU. This Committee will move forward with formation of a regional network, providing natural progression toward regional sharing of communications infrastructure, data, and video. The Committee will determine the scope, schedule, framework, components, and other criteria related to the regional network, which will allow agencies to share data and video with other agencies without the cumbersome task of developing a myriad of agreements. Structure and cost of the regional network will be established through the efforts of the Regional Network Committee. Any costs attributable to the regional network will be subject to future acceptance and concurrence of Regional Network Committee participants. Executing the MOU does not obligate any of the participants to expenses or costs without additional action.

In addition, future funding eligibility for ITS projects is contingent upon executing this MOU, as indicated in the Non-Competitive Project Selection Criteria Traffic Signal and Intelligent Transportation System Projects (see Attachment 2).

If your organization is interested in partnering to develop a multi-agency communication network for data and video sharing, please consider executing the attached MOU and providing us with names of prospective participants on the Regional Network Committee. If you have questions about this MOU, please contact Natalie Bettger at 817-695-9280 or Marian Thompson at 817-608-2336.

Michael Morris, P.E.

MT:lk Attachments

cc: Natalie Bettger, Senior Program Manager, NCTCOG Marian Thompson, Transportation System Operations Supervisor, NCTCOG

# MEMORANDUM OF UNDERSTANDING BETWEEN DALLAS-FORT WORTH REGIONAL INTELLIGENT TRANSPORTATION SYSTEM PARTNERS CONCERNING GUIDING PRINCIPLES FOR MULTI-AGENCY COMMUNICATION, DATA AND VIDEO SHARING

This Memorandum of Understanding (MOU) is entered into between the Dallas-Fort Worth Regional Intelligent Transportation System (ITS) partner agencies (Partners). The purpose of this MOU is to outline the roles and responsibilities of each Partner with respect to development of multiagency communication, data and video sharing on a regional network.

**WHEREAS**, the North Central Texas Council of Governments is responsible for the maintenance of the North Texas Intelligent Transportation System Regional Architecture, a blueprint for transportation integration and technological advancement through agreements and implementation; and

WHEREAS, the policy in Mobility 2040: The Metropolitan Transportation Plan for North Central Texas, a long-term transportation plan that defines a vision for the region's multimodal transportation system, requires the integration of all traffic operations systems between public sector entities, including sharing of data and video; and

**WHEREAS,** A regional communications network is necessary for the purpose of exchanging transportation-related information when required; and

WHEREAS, the North Central Texas Council of Governments will facilitate development of a regional network by establishing a North Central Texas Regional Communications Network Committee (Committee) comprised of the Partners that have executed this MOU; and

WHEREAS, the North Central Texas Regional Communications Network Committee will develop and put forth the standards, guidelines and structures necessary to establish, operate and maintain a regional network, including but not limited to a submittal, review and approval process; and

**WHEREAS**, physical connection points between Partners' networks will be necessary to establish a regional network and existing connections should be used to the extent possible; and

**WHEREAS,** redundant paths should be created to minimize system downtime due to disruption in service (i.e., cable cut) and redundancy will be a goal, and redundant physical paths may not be possible in all cases and the need for redundancy will be evaluated against the risks of failure and the costs to provide redundancy; and

**WHEREAS**, a Request for Authorization of Fiber Optic Cable and/or Related Infrastructure and Connectivity forms and diagram will be developed, and the Committee must approve each such request prior to an agency's participation.

**NOW, THEREFORE,** in consideration of these premises, and the Parties agree as follows:

#### Section 1. Partners' Responsibilities

- 1. Each Partner agrees to participate in the Committee and to provide input to Committee decisions.
- 2. The Committee will be comprised of representatives of agencies executing this MOU.

- 3. Each Partner with fiber optic cable or comparable wireless communications agrees to allow the use of two available fibers in dedicated fiber paths or bandwidth in the wireless path and for the exchange of regional transportation information (data and video) with any agency that participates on the shared regional network.
- 4. Each Partner agrees to provide its own hardware necessary to connect to the regional network, including but not limited to cabling, switches, firewall, and work stations.
- 5. Each Partner with communication links to the regional network agrees to provide reasonable efforts to maintain the connection of their local communication systems with those of other Partners. "Communication link" is intended to include fiber, wireless and other approved connectivity methods.
- 6. Each Partner agrees to continue participation in the regional network until the Partner provides written notice to the other Partners of its termination of participation.
- 7. Each Partner agrees to share the cost of operating and maintaining the proposed regional network, provided, however, that the amount of each Partner's share of any costs will be fixed by future agreement(s) and nothing in this MOU shall render a Partner liable for the payment of any costs without further action by each Partner. Each Partner will provide input into the total cost and sharing of cost to be set by future agreement(s).
- 8. Each Partner will be responsible for the cost of operating and maintaining its own portion of the regional network.
- 9. Each Partner will be responsible for the cost of establishing the connection(s) it desires and recognizes that regional funds may be available to provide Partners with a single connection to the network.
- 10. Each Partner agrees to develop and provide Center to Center plug-in for its respective internal system(s), including a Center to Center Data Extractor, Provider and Collector to retrieve and provide desired data with the purpose of establishing the regional exchange of information.
- 11. Each Partner agrees to use the regional video standard to exchange video on the regional network, should a regional video standard be developed and adopted.
- 12. To the extent permitted by law, each Partner agrees to indemnify and hold harmless other Partners for the failure of communications or devices beyond Partners' control.
- 13. Each Partner agrees to share any and all transportation data it provides on the regional network with Partners, or to limit accessibility as needed.
- 14. Each Partner agrees not to transmit, exchange or otherwise share video or data obtained solely from the regional network with entities not participating in the regional network.
- 15. Each Partner agrees to share real time status of ITS devices and ITS data to the extent possible for purposes of distribution to the public via the regional traveler information system.
- 16. Each Partner agrees not to record any network video without the express written consent of the Partner providing such video.
- 17. Each Partner agrees to log and update real time transportation data for distribution to other Partners to the extent practical and funded.

- 18. Each Partner agrees to provide maintenance for its own portion of the network.
- 19. Each Partner agrees to allow the use of shared data in training and outreach to support and improve regional operations.

### Section 2. North Central Texas Council of Governments' Responsibilities

- 1. NCTCOG agrees to investigate the possibility of funding for the network and one connection to the network for each Partner.
- 2. NCTCOG agrees to establish and moderate the Committee.

#### Section 3. General Provisions

- 1. The regional network will not damage nor degrade the ability of any Partner's network to perform its normal operation.
- 2. Hardware and other equipment will be required to be compatible with the existing network. Hardware and other equipment will need to be determined on a case-by-case basis until a standard configuration can be developed and as new technology becomes available.
- 3. ITS data sharing methods will in no way allow for or risk the exposure of IT security measures and internal IT structures.
- 4. Costs for shared portions of the network will be determined as the regional network is developed, and standards and standard operating procedures will be established by consensus among the Committee.
- 5. The Committee will identify what types of data and video will be entered into the traveler information system, and acceptable uses of such data, as the concept is developed.
- 6. The types of shared data and acceptable uses of such data will be determined as the concept is developed.
- 7. Priorities and permissions will be developed and implemented to optimize network performance and security.
- 8. Processes and participants for submittals, requests, approvals and responsibilities will be developed by the Committee.
- 9. The Committee will review and approve requests for new Partners or other changes related to the regional network.
- 10. The entity responsible for maintaining the regional network will be determined by the Committee.
- 11. A Partner may cancel or discontinue participation either completely or in part by providing one hundred eighty (180) days prior written notice to the regional network Partners.
- 12. Concepts developed for this program should be vendor neutral.
- 13. Technical capabilities and requirements of the regional network will be evaluated as the regional network is developed.

- 14. The Partners recognize that future agreements will be needed to effectuate and implement a regional network.
- 15. A more detailed agreement will be executed among the parties to effectuate and carry out the intent of the principles contained herein.
- 16. This MOU may be amended at any time upon mutual agreement of the parties.
- 17. The effective date of this MOU is the date of last signature by the parties hereto.
- 18. This MOU may be executed in two or more identical counterparts, each of which is deemed an original but all constitute one and the same instrument. An electronic mail and/or facsimile signature will also be deemed to constitute an original if properly executed and delivered to the parties.

[Signature pages follow.]

Signed and Duly Exec	uted by the Parties Below:
Mike Eastland	Date
Executive Director	
North Central Texas C	ouncil of Governments

Signed and Duly Executed by the Parties Below:		
Name	Date	
Position		
Agency		

# Non-Competitive Project Selection Criteria Traffic Signal and Intelligent Transportation System Projects

Agencies interested in submitting an application for funding should provide information as noted in **Eligibility Criteria Step 1.** After submitting basic information, the agency or city should request an in-person meeting/conference call for Q&A with NCTCOG's Project Management and TIP Teams. Additional NCTCOG staff may participate as needed. Projects will be approved for funding through evaluation of the non-competitive project selection criteria. NCTCOG staff will screen for the following requirements:

# **Eligibility Criteria**

# Step 1

- 1. Agency to provide the project description, project schedule, design, timetable and other supporting documentation to the extent available.
  - a. Project name and a brief description of the project (one paragraph) and its goals
  - b. Map of the project location (electronic shape file, latitude/longitude or PDF)
    - i. If central system or citywide, please indicate and no map is required.
  - c. Contact information for the requesting agency project manager or appropriate staff
  - d. Cost estimate including anticipated local match
  - e. Please note: project sponsorship must include a commitment to provide at least 20 percent of the total project cost from a local source, in order to qualify for federal funding.
- 2. If the project is selected, the project sponsor will pay for any cost overruns.
  - If data is available or collected, the project sponsor will share any project data with NCTCOG
    - (e.g. if traffic counts are collected, must share information with NCTCOG)
      - i. Formatting or file type requirements have not been established; may recommend using NCTCOG's format when established.
  - b. If the project is selected, the project sponsor will protect project equipment from theft and vandalism during construction and after final construction acceptance.
    - i. Protection may be validated by a statement and description of the protective measures.

Once NCTCOG staff has determined that the requirements in Step 1 have been met, staff will review and evaluate the eligibility requirements in Step 2.

# Step 2

NCTCOG staff will verify all of the following eligibility requirements are met:

Project is consistent with the current NCTCOG long-range transportation plan located here: <a href="http://www.nctcog.org/trans/mtp/">http://www.nctcog.org/trans/mtp/</a>

- 1. Project is located on Routes of Significance (ROS) or a minimum of 30% of the project is located on ROS <a href="https://www.nctcog.org/trans/its/documents/RoS\_Map\_update.pdf">www.nctcog.org/trans/its/documents/RoS\_Map\_update.pdf</a>
  - a. http://www.nctcog.org/trans/its/documents/RoS Listing.pdf
- 2. Project meets all applicable requirements under Code of Federal Regulations
  - a. Project is consistent with the Regional ITS Architecture http://www.nctcog.org/trans/its/RegITSArch/index.asp
  - b. Project development will follow the systems engineering process http://ops.fhwa.dot.gov/publications/seitsquide/section3.htm
- 3. Project achieves reduction in VOC and NOx
- 4. Project reduces impacts of recurring and non-recurring congestion
- 5. Project benefit cost analysis as calculated by NCTCOG must yield a benefit cost ratio of 1 or greater
- 6. Interim: Project sponsor's Transportation Management Center is connected to the regional network and is sharing communication networks and data for regional use.
- 7. Future: Project sponsor has executed the MOU Concerning Guiding Principles for Multi-Agency Communication, Data and Video Sharing

Once NCTCOG staff has determined that eligibility requirements in Step 2 have been met, the project will progress to Step 3.

# Step 3

Project will be considered for funding if five or more of the following criteria are met:

- 1. Project sponsors is providing more than 20% local match.
- 2. Project is multijurisdictional
- 3. Project fills in gaps in the existing Intelligent Transportation System (ITS) infrastructure by completing critical systems
- 4. Project leverages transportation resources by targeting investment, where possible, to facilities undergoing reconstruction
- 5. Project shares communication and data exchange through Lonestar or C2C
- 6. Project encourages multimodalism (e.g. bike/ped and transit or freight)
- 7. Project results in energy savings such as LED signal bulbs or solar
- 8. Project leverages, creates, or enhances sustainable funding sources including public/private sector (such as sustainable funding for 511)
- 9. Project can demonstrate increased safety
- 10. Project supports the development and expansion of automated performance measures
- 11. Project provides direct benefits to emergency services and incident response (e.g. police and fire)
- 12. Project provides ITS Central Control and Communications between ITS Central System and field devices
- 13. Project provides V2V or V2I or promotes innovative ITS concepts

If an ITS project is selected, the requesting agency should complete the ITS architecture consistency form prior to the approval of award funds by STTC/RTC. That form is located here: http://www.nctcog.org/trans/its/regitsarch/documents/ITS Architecture Consistency Blank.pdf

#### **Internal Comments and Activities**

Future: NCTCOG staff may provide application forms to COG jurisdictions. NCTCOG will establish a timeframe to execute the Memorandum of Understanding between Dallas-Fort Worth Regional Intelligent Transportation System Partners Concerning Guiding Principles for Multi-Agency Communication, Data And Video Sharing (MOU). In the future this may be an ITS funding eligibility requirement.

## To Be Monitored by NCTCOG for Internal Purposes

- 1. Total funds in TIP
- 2. Percentage of total TIP is allocated for traffic signals
- 3. Percentage of total TIP is allocated for ITS
- a. Funds for a project selected using ITS funds, or whose eligibility is based on ITS criteria, are limited to use on an ITS project. Scope changes will require review and approval by NCTCOG.
- 4. Funding allocations or limitations per requesting agency