



**Technical Review of Existing Documentation
Technical Memorandum**

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1. Purpose of Review

The Regional Intelligent Transportation Systems (ITS) Architecture for Northeastern (NE) Illinois will build upon a large body of ITS Planning outputs and ITS architecture development. The purpose of this technical review of existing documentation is:

- to identify aspects of previous efforts that will be useful in the development of the Regional ITS Architecture for NE Illinois
- to clarify the relationship between this architecture development effort and these other efforts
- to identify any issues relative to the use of the other architecture information, or issues regarding the relationship of the Regional ITS Architecture for NE Illinois to the other efforts.

2. Documents Reviewed

The following documentation was reviewed:

NE Illinois Strategic EDP for ITS:

- Final Report: Northeastern Illinois Strategic Early Deployment Plan for Intelligent Transportation Systems (ITS), June 1999

Tier 2 Architecture:

- Tier 2 Turbo Architecture Database, March 2001

GCM Corridor:

- GCM Corridor ITS Architecture, September 2001
- GCM Corridor ITS Architecture Turbo Architecture Database
- GCM Program Plan Update, July 2001

Gateway Project:

- Gateway Traveler Information System: System Architecture Design Document #2-8210.03, June 30, 2000
- Multi-Modal Traveler Information System Gateway Traveler Information System: National ITS Architecture Compliance document #2-8081.00, July 19, 1999
- Gateway Traveler Information System: System Definition Document #2-8120.00, June 17, 1999
- Gateway Traveler Information System: Gateway Functional Requirements Document #2-8140.02, May 23, 2000



RTA RTIP Project:

- Regional Transportation Authority Regional Transit ITS Plan Project Pre-Final Report, August 31, 2001
- RTA RTIP Turbo Architecture Database

ISHTA:

- Illinois Tollway Traffic and Incident Management System (TIMS) Initial Design Document, March 1999
- Traffic and Incident Management System (TIMS) Design Scope Update, March 2001

Chicago TMC:

- Chicago Traffic Management Center Preliminary Design Study: Technical Memorandum #2, Functional Requirements and Systems Architecture – Draft, June 2001
- Turbo Architecture Database of Chicago TMC Project Architecture- Draft

Cicero Avenue Corridor:

- Chicago DOT Cicero Avenue Smart Corridor: Existing Conditions, Committed Improvements and Stakeholder Perspectives, Working Paper #1, December 1, 1999
- Chicago DOT Cicero Avenue Smart Corridor: Functional Requirements, System Architecture and Conceptual Design, Working Paper #2, February 18, 2000
- Chicago DOT Cicero Avenue Smart Corridor: Implementation Plan, Working Paper #3, December 22, 2000
- Turbo Architecture Database of Cicero Smart Corridor Project

3. Technical Review by Project

To accomplish the technical review of existing documentation, the following aspects of each project/effort documentation were examined:

- Scope of the project/effort. This will include whether the effort has a regional architecture or a project architecture, what the geographic scope the effort covers, what timeframe it covers, and what scope of services or institutions are covered by the effort.
- Applicability of the effort to development of the Regional ITS Architecture for NE Illinois. Specifically, can elements of the effort's documentation be used in the development of the NE Illinois Architecture? In considering the applicability, each efforts outputs will be compared to the following list of outputs that need to be created for the NE Illinois Architecture:



- Identification of Stakeholders
- Inventory
- Needs and Services
- Operational Concept
- Functional Requirements
- Interface Definition
- Standards Definition
- Project Sequencing
- List of Needed Agreements

Note this list of outputs is based upon the set of outputs described in the FHWA’s Regional ITS Architecture Guidance Document, October 2001. This document can be found on the FHWA Electronic Document Library (Document Number 13598) at www.its.dot.gov/itsweb/welcome.htm. These outputs include all the requirements for the Regional ITS Architecture described in the ITS Architecture Rule/Policy.

- When the Regional ITS Architecture for NE Illinois is completed, what relationship will it have with the effort considered? For example, does the effort represent another regional ITS architecture (a peer architecture), or is the effort a project whose architecture should tier up to the NE Illinois architecture?
- Issues. Are there any issues relating to the use of the effort’s outputs in the Regional ITS Architecture for NE Illinois, or any issues regarding the relationship of the NE Illinois architecture to the effort.

3.1. NE Illinois EDP

3.1.1. Scope of Effort

The “Strategic Early Deployment Plan (SEDP)” provides a blueprint for the integrated deployment of ITS in NE Illinois.” It represents a 10 year plan with a 20 year vision for the deployment of ITS in the 6 county of the NE Illinois region. The entire range of transportation services is considered by the plan.

3.1.2. Applicability

This plan is very applicable to the development of the Regional ITS Architecture for NE Illinois. It represents the initial portions of the architecture effort.

Aspect of Architecture	Applicable to NE IL Arch	Comments
Identification of Stakeholders	X	Key stakeholders are all described.
Inventory	X	Considerable inventory information is

Aspect of Architecture	Applicable to NE IL Arch	Comments
		provided. This information was the basis for building the Tier 2 Turbo Architecture Database described below.
Needs and Services	X	The SEDP has done a very thorough job of defining needs and services
Operational Concept		Not directly captured in Documentation.
Functional Requirements		Not directly captured in Documentation.
Interface Definition		Not directly captured in Documentation.
Standards Definition		Not directly captured in Documentation.
Project Sequencing	X	The report has a very good identification of ITS projects for the region. The one caveat is that they represent the plan as it was in 1999.
List of Needed Agreements		Not directly captured in Documentation.

3.1.3. Relationship

The Regional ITS Architecture for NE Illinois is a part of the larger Strategic Planning effort represented by the SEDP for ITS.

3.1.4. Issues

The primary issue with the SEDP outputs is what results need to be updated since the plan was originally developed in 1999. Will the Regional ITS Architecture for NE Illinois be developed as an “architecture” section of a larger Strategic Deployment Plan for ITS in NE Illinois? Or will the architecture alone be maintained, with the SEDP not being updated?

3.2. Tier 2 Architecture

3.2.1. Scope of Effort

The Tier 2 Workshop was held on March 20-22, 2001. This FHWA sponsored workshop brought together a large number of area stakeholders to begin development of a Regional ITS Architecture for NE Illinois. The stakeholders identified inventory, services, and interconnects between elements. The scope of the architecture was the complete range of ITS services for the 6 counties comprising the NE Illinois region. The output of the workshop was a Turbo Architecture Database with an inventory, set of services, and a set of interconnects.

3.2.2. Applicability

This Turbo Architecture Database will serve as the basis for the development of the NE Illinois Architecture. As the table below shows, it covers some but not all of the aspects of NE Illinois Architecture.

Aspect of Architecture	Applicable to NE IL Arch	Comments
Identification of Stakeholders	X	Stakeholders are identified, but no descriptions have been generated.
Inventory	X	A fairly complete inventory of ITS elements for the region was generated.
Needs and Services	X	A set of market packages was selected that described the expected services for the region.
Operational Concept		Not covered in workshop output.
Functional Requirements		Not covered in workshop output.
Interface Definition	X	A customization of interconnects was performed, but the customization of information flows was not. This aspect was performed as part of the GCM Corridor Architecture described below.
Standards Definition		An initial definition of standards can be generated out of the Turbo Architecture database, although this was not explicitly done.
Project Sequencing		Not covered in workshop output.
List of Needed Agreements		Not covered in workshop output.

3.2.3. Relationship

The Tier 2 Turbo Architecture Database will serve as a starting point for the current effort, but will be superseded by this effort. Therefore no long-term relationship will exist.

3.2.4. Issues

The primary issue with the Tier 2 database is its incompleteness. The current effort will remedy this by creating a complete regional ITS architecture.

3.3. GCM Corridor Architecture

3.3.1. Scope of Effort

The GCM Corridor Architecture, the first comprehensive regional architecture for the area, was developed in conjunction with the 2001 Corridor Program Plan Update. As defined in the GCM Corridor ITS Architecture document, September 2001, the mission for the GCM Corridor ITS Architecture is to develop an open and integrated ITS architecture for the GCM Corridor that will support existing and future GCM projects and enhance compatibility of existing architectures within the GCM Corridor and emerging national ITS architecture. Four objectives were established as a means toward realization of the mission statement above:

- Establish an ITS architecture that: is open, receptive and adaptable; is consistent with developing national standards; provides opportunities for private/public partnerships; and encourages and supports interagency cooperation.
- Develop and integrate traveler information, traffic management, public transportation management and emergency management systems; electronic payment services; and commercial vehicle operations throughout the region as appropriate.
- Define how information is collected, processed, distributed and disseminated.
- Define interfaces and information flow among/between Corridor subsystems, agencies, and users.

The architecture represents a 10 year plan for the implementation of ITS in the GCM Corridor. As such it includes an architecture for the 6 counties of NE Illinois (which are all a part of the GCM Corridor). The GCM Corridor Architecture also included development of a Turbo Architecture Database to define the detailed interfaces and information flows. This database incorporated all the elements of the Tier 2 database (plus numerous additional elements representing systems in Indiana and Wisconsin) and completed the customization of the database to the architecture flow level. The database is created as a regional ITS architecture (with 202 elements connected via 3347 information flows) as well as three project architectures for the three state hubs (defined as Illinois Gateway, etc.). The Illinois Gateway is defined by 123 elements connected via 1843 information flows.

3.3.2. Applicability

The Illinois Gateway project elements of the GCM Corridor Architecture represent an even more appropriate starting point for the Regional ITS Architecture for NE Illinois than the Tier 2 database, because the GCM Corridor Architecture has taken all of the elements of the Tier 2 database and created a complete set of interfaces and information flows. A review of the inventory elements in both databases illustrates the similarity. The review indicates that 53 of the elements have identical names in both Tier 2 and GCM Architecture databases, while almost all of the remaining elements can be matched, but have differences in names that result from:



1. The element name has been slightly changed to describe the stakeholder (for example, the Tier 2 database element “County 911 Centers” has been changed in the GCM Corridor database to “NE Illinois County 911 Centers”)
2. A single element in the Tier 2 database has been broken into several elements. For example the “Other Sub-Regional TMCs” element from the Tier 2 database has been broken into an individual Sub TMC element for each of the 6 counties in NE Illinois.
3. The element name was changed to correct some minor misspelling. For example the element “Municipals EMCs” in the Tier 2 database was changed to “Municipal EMCs” in the GCM database.

That is not to say that the job is completed, there are still some missing pieces as described in the table below.

Aspect of Architecture	Applicable to NE IL Arch	Comments
Identification of Stakeholders	X	This has been extensively covered in the documentation and the database. The remaining effort is to incorporate descriptions of the stakeholders in the Turbo Architecture database.
Inventory	X	The inventory has been extensively identified, but descriptions for most of the elements will need to be added.
Needs and Services	X	The Market Package identification (in the documentation and database) provides an excellent set of services.
Operational Concept	X	A high level discussion of roles and responsibilities is provided in the document.
Functional Requirements	X	Some information on functional requirements is provided in the architecture document, but the functions are not broken down by Inventory element.
Interface Definition	X	This has been very well described in the Corridor Turbo Architecture database, but should be reviewed in light of the RTA RTIP database (which identifies additional elements and interconnections relating to transit).
Standards Definition	X	This area is well described in the Architecture document.
Project Sequencing	X	The definition of projects is well covered in the Program Plan Update document
List of Needed Agreements	X	Some discussion of needed agreements is in the Architecture document.

3.3.3. Relationship

Both the GCM Corridor Architecture and NE Illinois architecture are Regional ITS Architectures. As currently defined they have almost complete overlap in NE Illinois. Understanding the relationship of one to another is a key issue to be addressed by this current effort. At a minimum, the two architectures should track one another and have similar update or maintenance cycles so that they continue to track in areas where they overlap.

3.3.4. Issues

The main issue regarding the GCM Corridor Architecture is the extent to which it duplicates the scope of the Regional ITS Architecture for NE Illinois. Should this almost complete overlap be maintained, or should a redefinition of scope be made so there is less overlap. An additional issue, which may impact the decision taken on scope is whether both regional ITS architectures will be maintained and updated or only the Regional ITS Architecture for NE Illinois.

3.4. GCM Gateway Project

3.4.1. Scope of Effort

The Gateway Project is a major ITS project to create a Corridor wide Hub to tie together all ITS elements of the GCM region. The primary responsibility of the Gateway System is to collect, organize, and redistribute all transportation related data including travel times, construction and maintenance, incidents, and weather information on the National Highway system and Strategic Regional Arterials within the Corridor.

The main objective of the Gateway is to provide a real-time traveler information clearinghouse for the GCM Corridor to support the interoperability of various ITS subsystem and provide millions of travelers with real-time traffic information within the GCM Corridor. In addition, the Gateway System will be multimodal, collecting and distributing transportation related data from a variety of transportation modes. The other main objectives of the Gateway Traffic Information System (TIS) are to provide the communications infrastructure for cooperative control of traffic surveillance and control devices by traffic management agencies within the Corridor. In order to collect information from sources throughout the Corridor, the Gateway TIS will be connected by a Corridor wide electronic network together with regional hubs within the three states and with all appropriate ITS data sources. The regional hub in each state will act as the focal point to collect data within its region, validate and fuse the data, then submit the data to the Gateway. The Gateway will process the data from the three regional hubs, and re-distribute the data to the regional hubs and the general public. The regional hubs will distribute the data to the data source systems and other interested agencies within their regions. The Illinois regional hub is being designed and developed as part of the Gateway Project.

A multi-phased implementation is proposed for the Gateway TIS system. The initial phase of Gateway development is underway. The primary difference between the various phases is the number of data connections to the Gateway and the communication medium. In addition, the



Illinois Hub will initially be collocated within the Gateway Server but will be designed to run on a separate server in the future.

3.4.2. Applicability

The Gateway Project documentation provides considerable detail regarding key elements in the NE Illinois region. As such it will provide valuable information to the current regional ITS architecture development effort.

Aspect of Architecture	Applicable to NE IL Arch	Comments
Identification of Stakeholders	X	The stakeholders involved in the project are clearly identified.
Inventory	X	The ITS elements involved in the project, both near term and long term are clearly defined.
Needs and Services		Needs and Services are covered in other GCM documentation.
Operational Concept	X	Documentation defines roles and responsibilities of stakeholders in the operation of the Gateway.
Functional Requirements	X	Detailed functional requirements of the Gateway system are defined.
Interface Definition	X	The documentation includes discussion of detailed interfaces and information flows.
Standards Definition	X	Standards needed for the project are identified.
Project Sequencing		The sequencing of this project with other projects is covered in other GCM documentation.
List of Needed Agreements		These are contained in other GCM documentation.

3.4.3. Relationship

The GCM Gateway Architecture is a project architecture and should map to the relevant regional ITS architecture. One regional ITS architecture it certainly should map to is the GCM Corridor Architecture. Due to the overlap in coverage between the Corridor architecture and the Regional ITS Architecture for NE Illinois, portions (but not all) of the GCM Gateway Architecture should map to the NE Illinois architecture.



3.4.4. *Issues*

The connection of ITS systems to the Gateway TIS will occur individually in the near term, but will all occur through the Illinois Hub in the future. Should the Regional ITS Architecture for NE Illinois address both types of connectivity, or only the long-term vision of providing all connections through the Illinois Hub?

3.5. RTA RTIP

3.5.1. *Scope of Effort*

The Regional Transportation Authority (RTA) Regional Transit ITS Plan (RTIP) was developed with the purpose of presenting a vision and an approach for further transit ITS deployment throughout NE Illinois, and for promoting coordination and integration of various transit ITS projects.

Under the umbrella of multimodal travel management and traveler information, the plan covers four primary areas that are termed infrastructure components: Transit Management, Traveler Information, Traffic Signal Control, and Electronic Fare Payment. Although the scope is all transit within the NE Illinois region, the document focuses on the Illinois Transit Hub, which has the following roles: 1) to be a collection and distribution point for all transit data generated by ITS systems in the region, and 2) to be a host for value-added systems such as transfer connection protection and certain traveler information facilities. The RTIP Turbo Architecture database is a project architecture for the Illinois Transit Hub. It defines 233 information flows between its 49 inventory elements.

3.5.2. *Applicability*

The RTIP provides a complete (and recently created) consensus definition of the transit elements of the NE Illinois region. As such it is invaluable to the creation of the Regional ITS Architecture for NE Illinois. While this database logically tiers into one (or both) regional ITS architectures, its element names are not identical to either. Many of the elements are the same, just with slightly different names (for example Metra Consolidated Control Facility in the Tier 2 database is Metra CCF in the RTIP database), but the Illinois Transit Hub architecture does include an additional level of detail (including the operator elements) as well as some additional transit elements not included in either the Tier 2 or GCM Corridor architectures.

Aspect of Architecture	Applicable to NE IL Arch	Comments
Identification of Stakeholders	X	Well covered in documentation and database.
Inventory	X	Database has an excellent transit inventory.
Needs and Services	X	Well covered in the documentation.
Operational Concept	X	Not directly covered in the documentation.
Functional	X	The Functional Requirements of the Illinois

Aspect of Architecture	Applicable to NE IL Arch	Comments
Requirements		Transit Hub are well covered in the RTIP.
Interface Definition	X	The interfaces and information flows for the transit elements are well covered in the database.
Standards Definition	X	Implicitly covered through standards information in Turbo Architecture Database.
Project Sequencing	X	Projects are listed by time period. In addition a cost/benefit analysis of key transit projects is provided.
List of Needed Agreements	X	The document has an excellent discussion of needed institutional agreements.

3.5.3. Relationship

The RTIP is a regional planning activity focused on transit related services. As such, it supports the larger regional transportation planning efforts under Chicago Area Transportation Study (CATS). The architecture reviewed is a project architecture (for the Illinois Transit Hub) so it logically would tier into the Regional ITS Architecture for NE Illinois.

3.5.4. Issues

The Illinois Transit Hub architecture uses a set of element names that differ slightly from those found in the two existing regional ITS architecture outputs (Tier 2 and GCM Corridor architectures). When constructing the Regional ITS Architecture for NE Illinois, a common set of elements and element names should be identified. Whether these are the names currently used in the RTIP architecture, or those used in the GCM Corridor Architecture, or some new set of names, is an issue that will have to be resolved.

3.6. ISHTA

3.6.1. Scope of Effort

The Illinois State Toll Highway Authority (ISTHA) documentation reviewed relates primarily to the Traffic and Incident Management System (TIMS). This project will integrate the collection of incident and travel time data and provide for control of Dynamic Message Signs (DMS), Closed Circuit Television (CCTV), and other sensors. The system will also integrate information from I-Pass (Electronic Toll Collection) and from emergency services dispatch. The TIMS will provide an interface to the Illinois Gateway Hub for the sharing of this incident and travel data.



3.6.2. Applicability

The documentation reviewed on the TIMS identifies key interfaces for the system and provides detailed requirements for the development of the system. It will be useful in validating the ISHTA portions of the regional ITS architecture.

Aspect of Architecture	Applicable to NE IL Arch	Comments
Identification of Stakeholders	X	Documentation reviewed primarily covers single stakeholder- ISHTA.
Inventory	X	The documentation presents a variety of subelements of the TIMS. Some of these might be considered for addition to the regional inventory.
Needs and Services		Not directly covered in documentation reviewed.
Operational Concept	X	The operational concept of the TIMS is provided.
Functional Requirements	X	Detailed requirements are provided in the documentation.
Interface Definition	X	Some interface definition is provided in the diagrams accompanying the documents.
Standards Definition		Not directly covered in documentation reviewed.
Project Sequencing		Not directly covered in documentation reviewed.
List of Needed Agreements		Not directly covered in documentation reviewed.

3.6.3. Relationship

The TIMS is a major project in the region. The Regional ITS Architecture for NE Illinois should have sufficient detail in its representation of the TIMS and other ISTHA elements to allow a project architecture to be easily created that accurately describes the TIMS interfaces and information flows.

3.6.4. Issues

No issues are currently identified with this project.



3.7. *Chicago TMC*

3.7.1. *Scope of Effort*

The Chicago Traffic Management Center (TMC) is one of the major ITS projects of the region and is currently in development. It will be a 24 hour a day, seven day a week operations center, housing some of the City of Chicago’s strategic transportation related operations and facilitating coordination with other key regional and state operations centers.

The Chicago TMC will collocate selected operational elements from the following city and regional organizations:

- City of Chicago: Department of Transportation: Bureau of Traffic (BOT)
- City of Chicago: Department of Streets and Sanitation: Bureau of Electricity (BOE)
- City of Chicago: Department of Streets and Sanitation: Radio Main (DSS RM)
- City of Chicago: Department of Streets and Sanitation: Traffic Services (DSS TS)
- Chicago Police Department: Traffic Services Division (CPD)
- Chicago Transit Authority (CTA)
- Westwood One’s Shadow Traffic/MetroNetworks (Shadow Traffic)

The City Snow Command function will also be located in the same facility, and currently, the City is debating having the TMC serve a synergistic function with a proposed emergency management center. Other key regional stakeholders such as the GCM Gateway will share transportation related data with the Chicago TMC. The City’s Emergency Communication Center 911 Center (911 Center) will also share incident information and video images with the Chicago TMC. Additionally, the Chicago TMC will provide the traveling public with accurate and timely traveler information through a variety of media partners, City websites, Highway Advisory Radio (HAR) and DMS.

3.7.2. *Applicability*

The documentation provides detailed requirements for the Chicago TMC as well as excellent customized market package diagrams.

Aspect of Architecture	Applicable to NE IL Arch	Comments
Identification of Stakeholders		Not directly covered in documentation reviewed.



Aspect of Architecture	Applicable to NE IL Arch	Comments
Inventory	X	The documentation (and database) provides key inventory elements and suggests additional subelements that may be appropriate to add to the overall regional inventory.
Needs and Services	X	The customized market packages provide a good set of services for the Chicago TMC.
Operational Concept		Not directly covered in documentation reviewed.
Functional Requirements	X	The document provides detailed requirements for the project.
Interface Definition	X	The database provides a set of interfaces and information flows for the TMC.
Standards Definition		Not directly covered in documentation reviewed.
Project Sequencing		The documentation reviewed represents a project, so this is not applicable.
List of Needed Agreements		Not directly covered in documentation reviewed.

3.7.3. Relationship

The Chicago TMC is an important regional ITS project, and the project architecture should be mappable to the regional ITS architecture. As the Chicago TMC is deployed, the regional ITS architecture should be updated to reflect the interfaces and information flows actually developed.

3.7.4. Issues

The Chicago TMC project database uses a set of element definitions that do not line up with the regional ITS architecture databases. Some adjustment will have to be made to the Chicago TMC database to affect the mapping of one to the other.

3.8. Cicero Avenue Corridor

3.8.1. Scope of Effort

The Chicago Department of Transportation (CDOT) Cicero Avenue “Smart Corridor” project is a multi-agency effort managed by CDOT to plan wider use of ITS on Cicero Avenue (Illinois State Route 50) in the vicinity of Midway Airport and the Stevenson Expressway (I-55). The project scope is to consider a variety of actions to better monitor and manage the flow of people and vehicles through the heavily traveled area, and to supply more real-time travel condition information to the public and to operators. In the future the project will provide the cornerstone for regional traffic control. The ultimate goals are to increase efficiency and reduce travel times



in the corridor. The Turbo Architecture database describes 22 elements and 224 information flows between these elements.

3.8.2. *Applicability*

The documentation defines details of the elements involved in the Cicero Avenue Corridor project. It provides a good set of project descriptions.

Aspect of Architecture	Applicable to NE IL Arch	Comments
Identification of Stakeholders	X	Identification of those applicable to the Cicero Avenue Corridor.
Inventory	X	Identification of elements in the Corridor.
Needs and Services	X	Market packages pertinent to the Corridor are defined.
Operational Concept		Not directly covered in documentation reviewed.
Functional Requirements	X	Well covered in documentation.
Interface Definition	X	The database provides a set of interfaces and information flows.
Standards Definition		Not directly covered in documentation reviewed.
Project Sequencing	X	The documentation provides significant description of the planned projects for the corridor.
List of Needed Agreements		Not directly covered in documentation reviewed.

3.8.3. *Relationship*

The Cicero Avenue Corridor architecture is a project architecture and therefore should map to the regional ITS architecture under development. It has a significant overlap with the Chicago TMC architecture.

3.8.4. *Issues*

The primary issue identified is that the Cicero Avenue Corridor Turbo Architecture database does not use the same element names used in the current regional architecture efforts.



4. Summary of Issues

In reviewing the existing documentation on projects and architectures in the NE Illinois region several issues have been identified relative to the creation of the Regional ITS Architecture for NE Illinois. The following summarizes the issues identified:

1. Will the Regional ITS Architecture for NE Illinois be developed as an “architecture” section of a larger Strategic Deployment Plan for ITS in NE Illinois? Or will the architecture alone be maintained, with the SEDP not being updated?
2. What is the relationship of the regional ITS Architecture for NE Illinois to the GCM Corridor Architecture. There is an almost complete overlap between the two for the NE Illinois elements. Will both be maintained?
3. The connection of ITS systems to the Gateway TIS will occur individually in the near term, but will all occur through the Illinois Regional Hub in the future. Should the Regional ITS Architecture for NE Illinois addresses both types of connectivity, or only the long-term vision of providing all connections through the Illinois Regional Hub?
4. There are different naming conventions for element (and stakeholders) names among the existing architectures. What naming conventions should be used for the Regional ITS Architecture for NE Illinois? Once this is chosen, what actions should be taken to update the existing project architectures (for example the Illinois Transit Hub, Cicero Avenue Corridor, and Chicago TMC) so that they match the regional architecture naming conventions?



5. Recommendations

The following are an initial set of recommendations to address the issues above. This set of recommendations may be altered significantly subject to discussion with the affected stakeholders.

1. What aspects of architecture/strategic plan should be maintained? This will be the subject of the Maintenance Plan recommendation. Initial thoughts are to maintain the architecture and those aspects of the SEDP that would benefit from periodic update in the Strategic ITS Deployment Plan for NE Illinois.
2. Relationship of the Regional ITS Architecture for NE Illinois to the GCM Corridor Architecture. It is recommended that the NE Illinois architecture to start with the Illinois Gateway Project architecture information contained in the GCM Corridor Architecture database and expand upon that as needed to cover the scope of projects for which the regional ITS architecture will serve as a planning tool. The level of detail in the NE Illinois architecture will not be any less than in the current GCM Corridor Architecture, but may be increased if deemed necessary based upon the expected usage of the architecture.
3. How to handle ITS system connections to the GCM Gateway? The initial recommendation is to show both types of connections (directly to the GCM Gateway and through the Illinois Regional Hub) since the former will be in place for several years, and the latter is the desired end result.
4. Naming Conventions. The initial recommendation is to begin with the element naming conventions set in place by the GCM Corridor Architecture, but make a slight modification to the stakeholder names (removing the "IL_" from the beginning of each name). As the NE Illinois architecture is developed additional stakeholder consensus changes may occur. Regarding the existing project architectures, these are much smaller in scope than the regional architecture and should be updated to have matching elements and stakeholders once the regional architecture is developed.