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Gateway Cities
Traffic Signal Synchronization and
Bus Speed Improvement Project
I-5/Telegraph Road Corridor

Presentation to: Gateway Cities' Public Works Director's Meeting

Project Status Update

Siemens Energy & Automation, Inc.

Gardner Transportation Systems

March 14, 2002

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Today's Agenda

- Review of Overall Project
- Project Status
- Requirements Definition
- Proposed Architecture
- Equipment Definition
- Control Room Layouts (Typical)
- Next Steps

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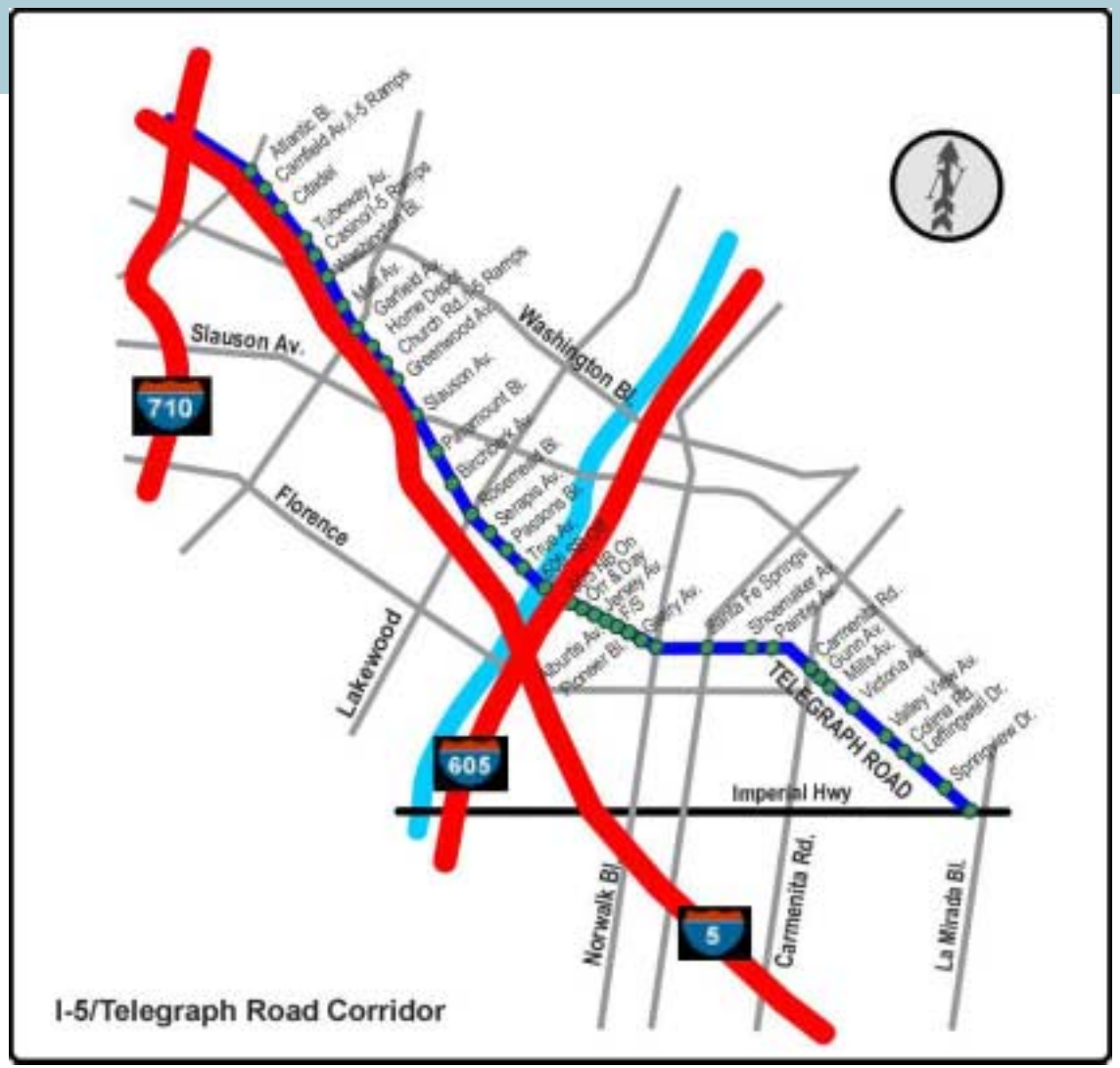
Project Area



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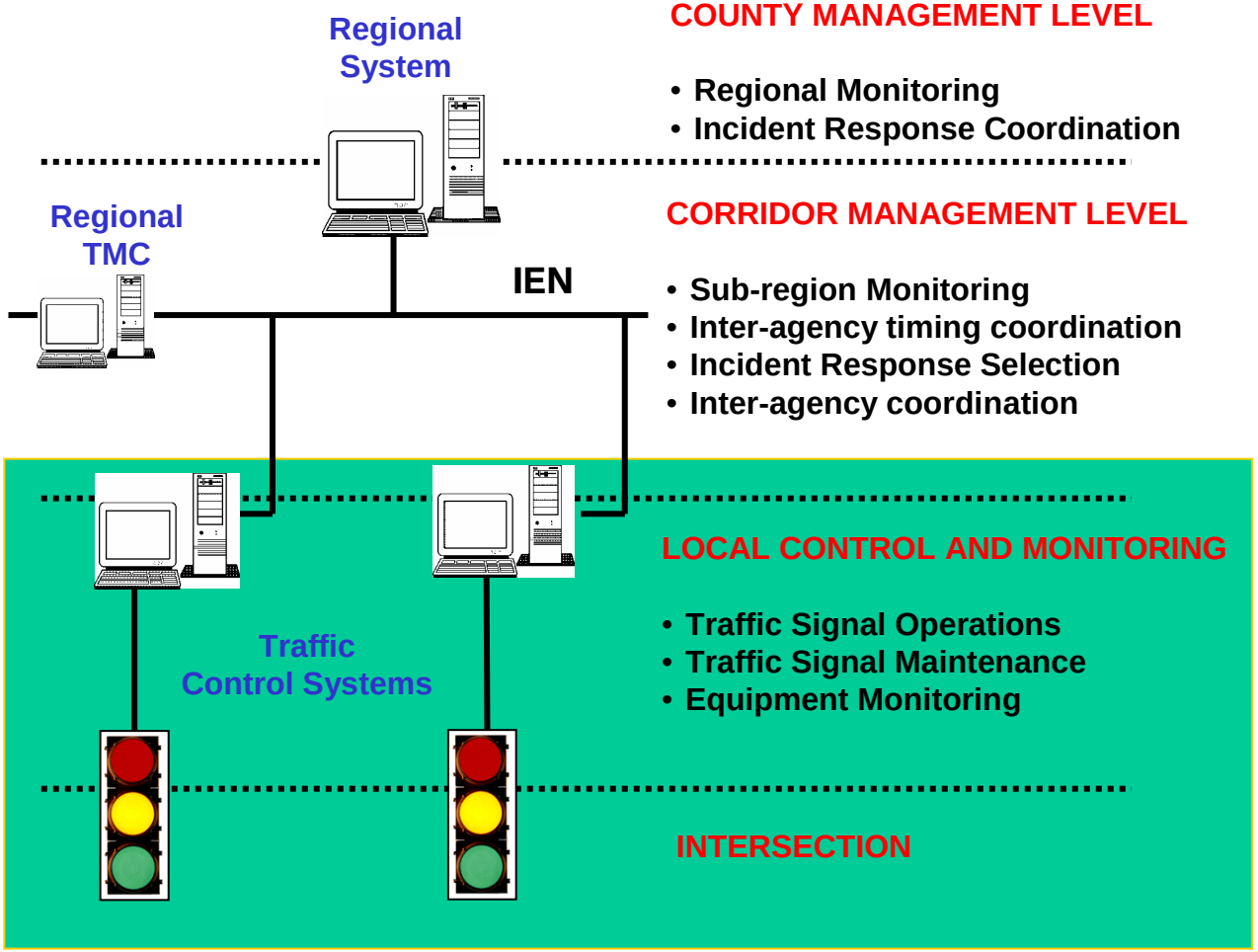
Project Focus – Implementing the IEN at the local level



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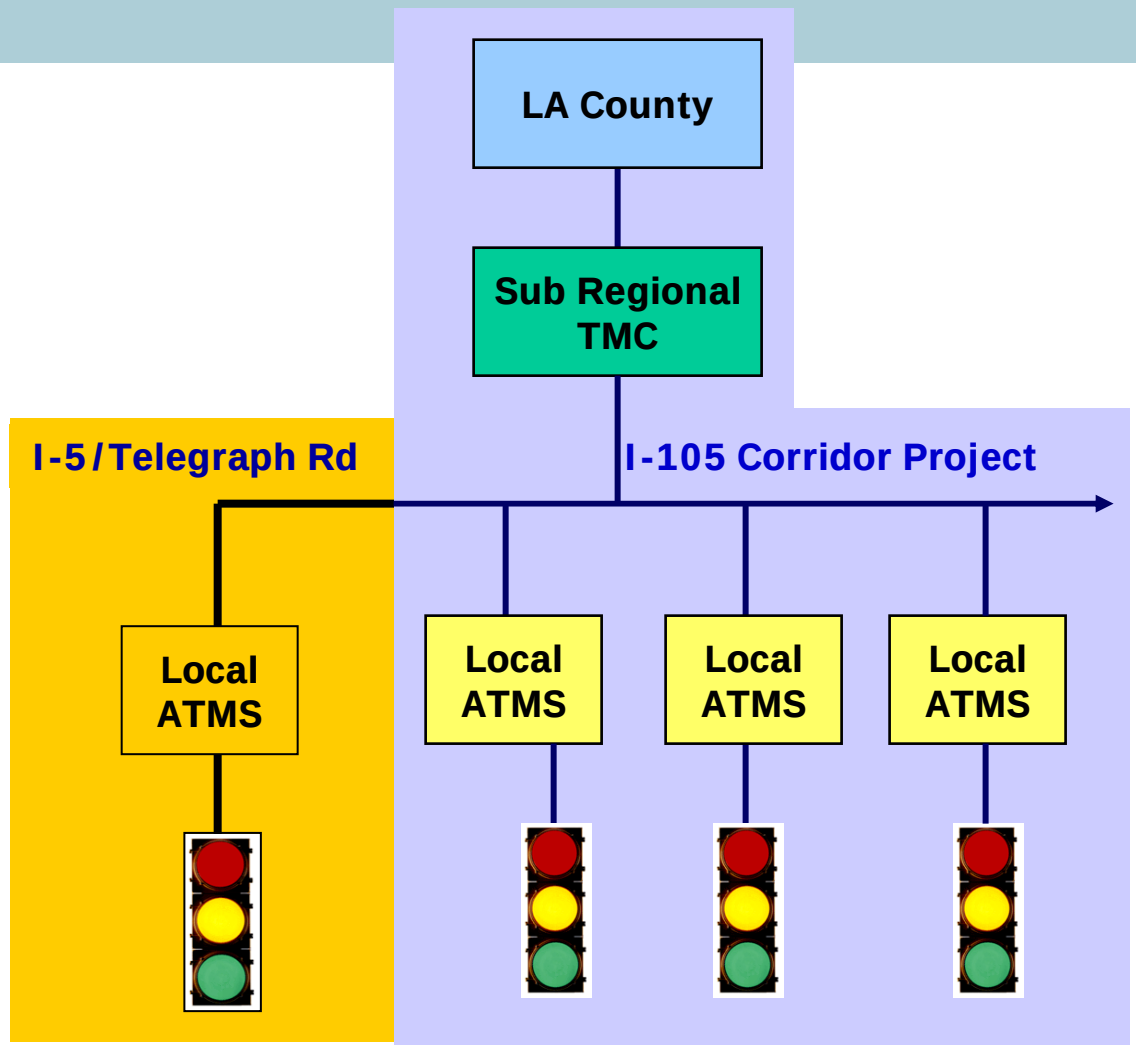
Relationship with other Projects



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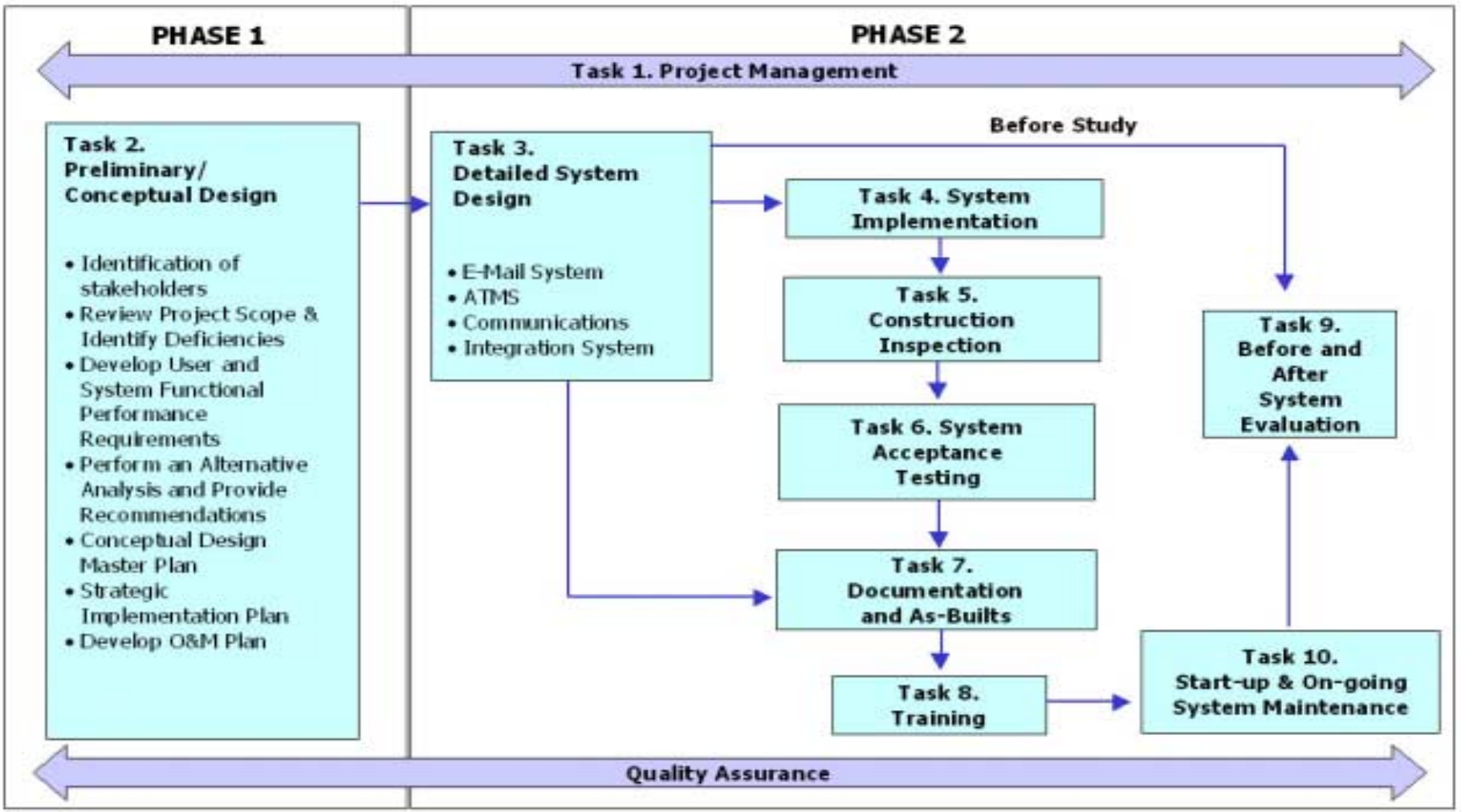
Work Flow Plan



Project Status

• Web Page	On-Going
• Agency Interviews	Complete
• Field Surveys	Complete
• Operational Objectives and City Reports	Complete*
• ATMS User Requirements	Complete*
• ATMS Functional Requirements	Draft Complete*
• System Integration Requirements	Final Complete/In Review**
• Communication System Requirements	Draft Complete/In Review**
• Final System Requirements	In preparation
• High Level Design (ATMS and LCC's)	Draft Complete**

* Submitted to Gateway Cities

** To be submitted to Gateway Cities (short term)

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High Level Design Process

- Define Requirements
- Derive Functionality
- Design Architecture
- Allocate Functionality to the Architecture
- Derive Equipment
- Layout Local City Control Site

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Requirements Process

- Input:
  - Stakeholders Objectives — Agency Interviews
  - Agency Needs — Agency Interviews
  - Existing Conditions — Agency Interviews/Field Surveys
  - I-105 User Requirements
  - SGVPP User Requirements
- Output:
  - Identification of System Functions (Use Cases)
  - Identification of Requirements Per Use Case

Use Case: A View of the Functionality of the System From the User's Perspective

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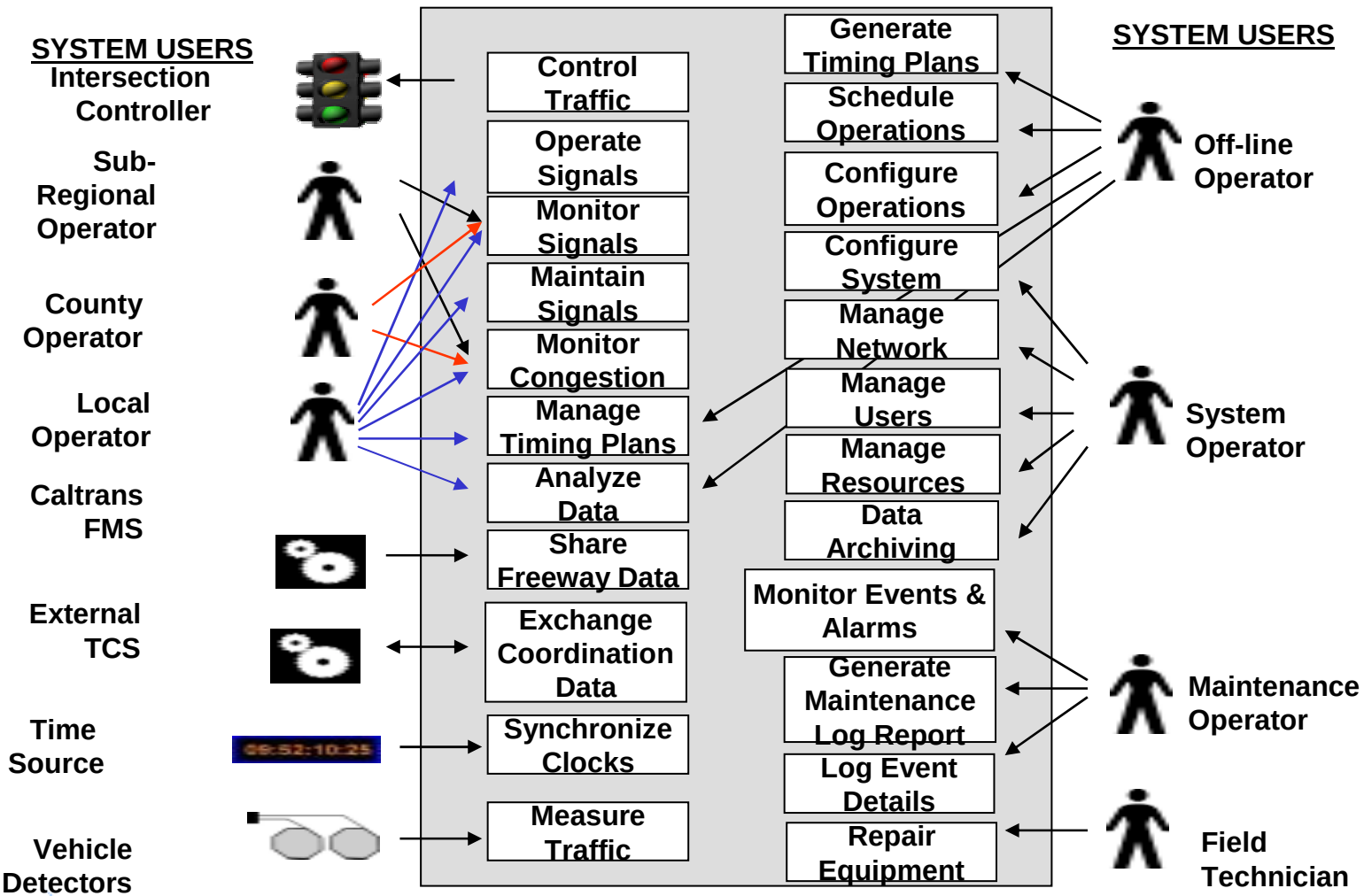
Common ATMS Use Cases



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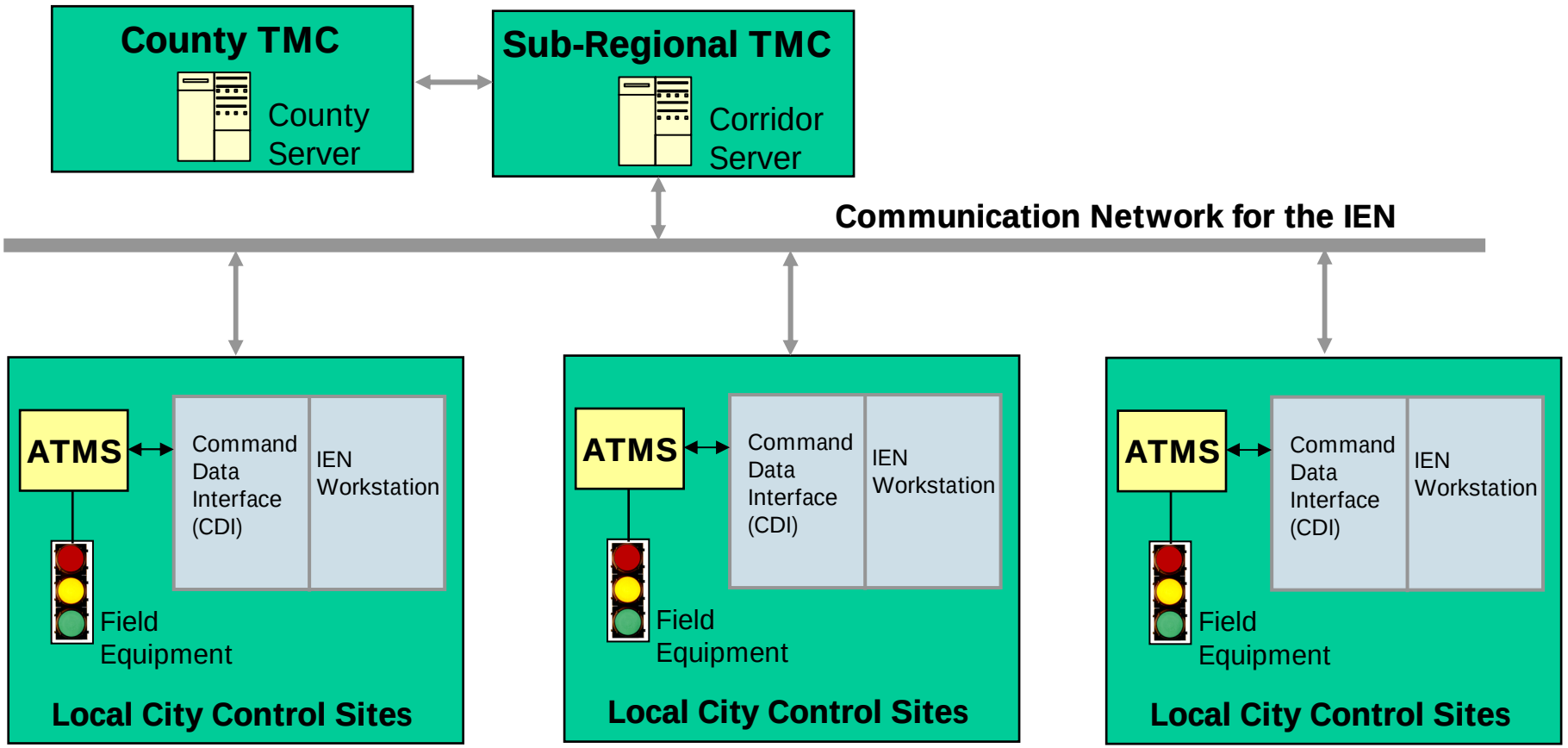
IEN Architecture



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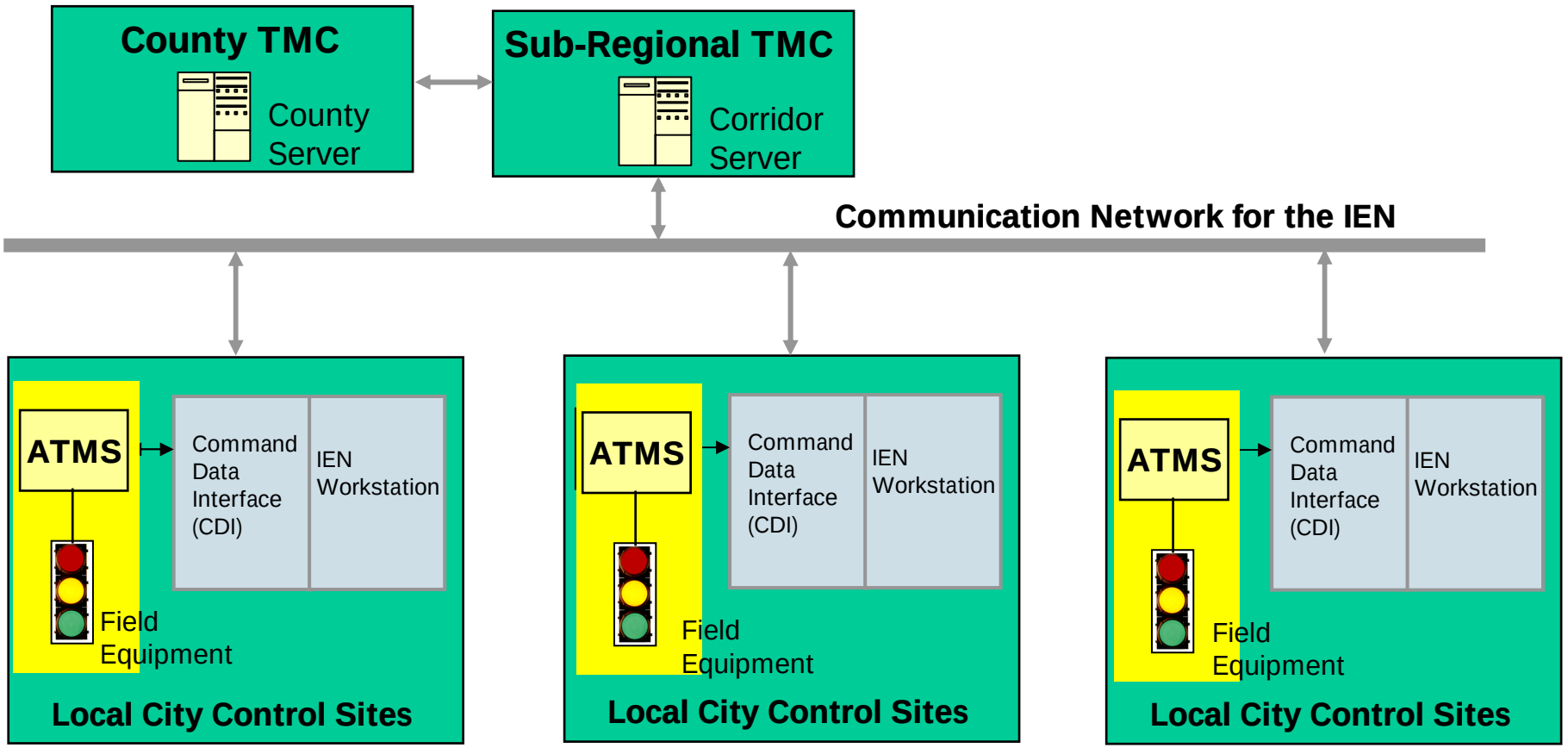
Requirements Components - ATMS



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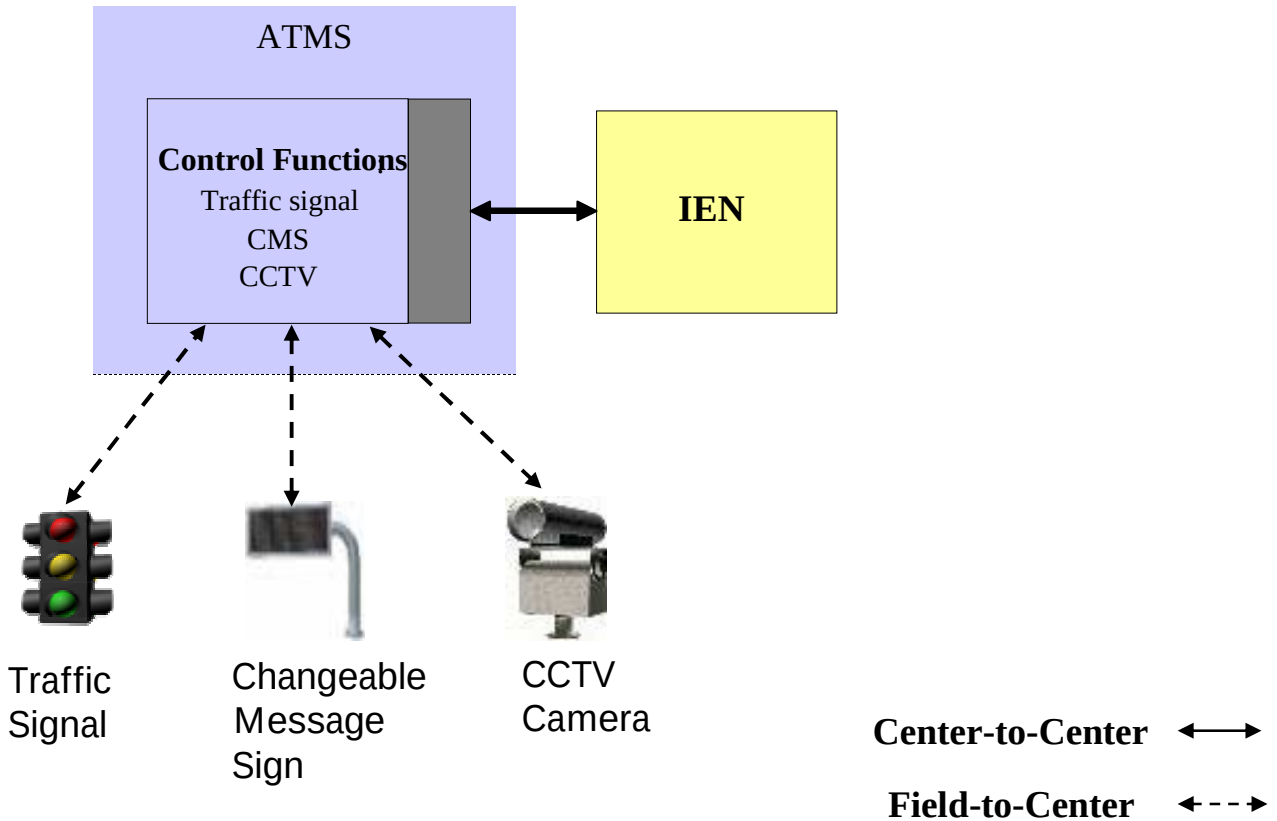
I105/I5 Telegraph Road Project Physical Components



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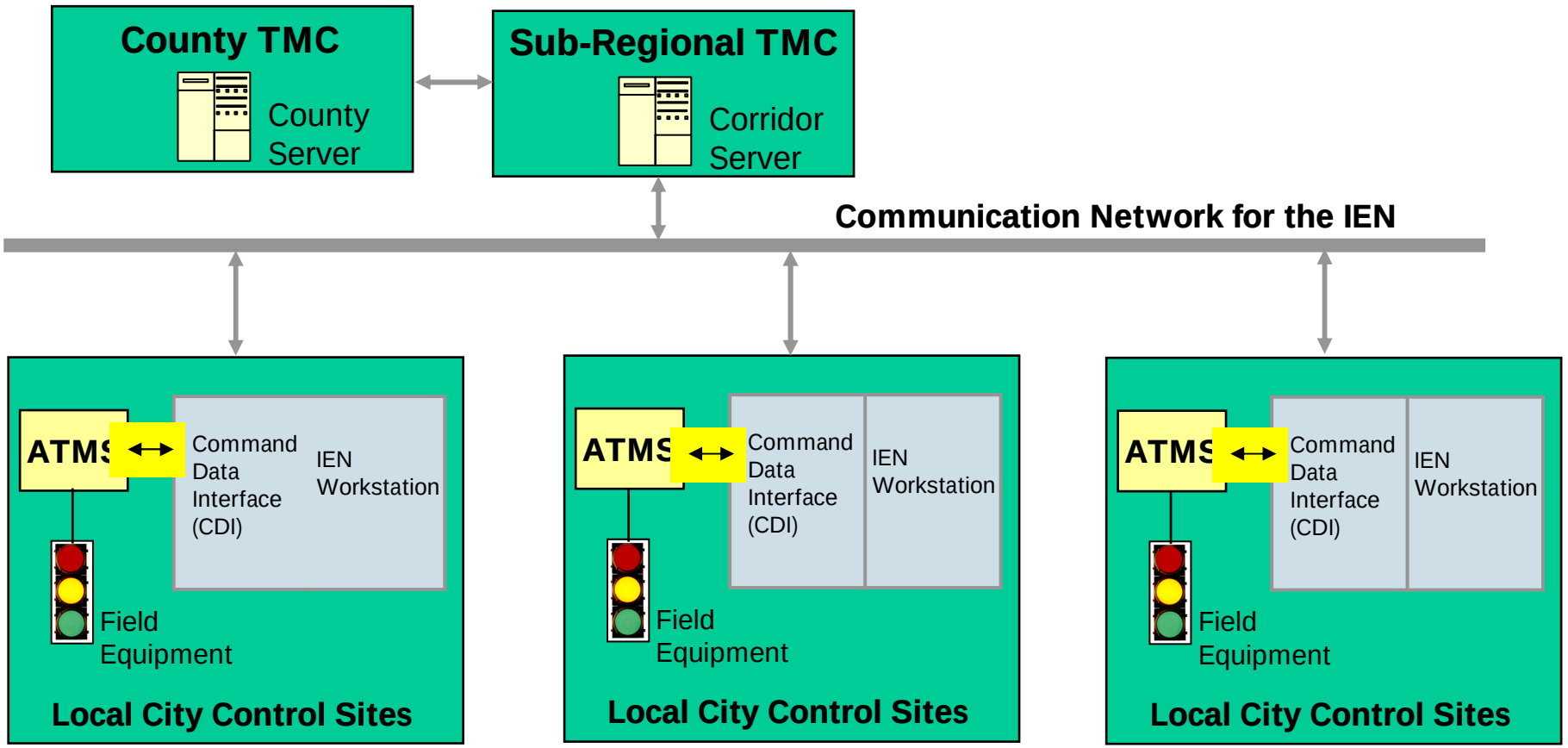
Requirements Components - Integration Systems



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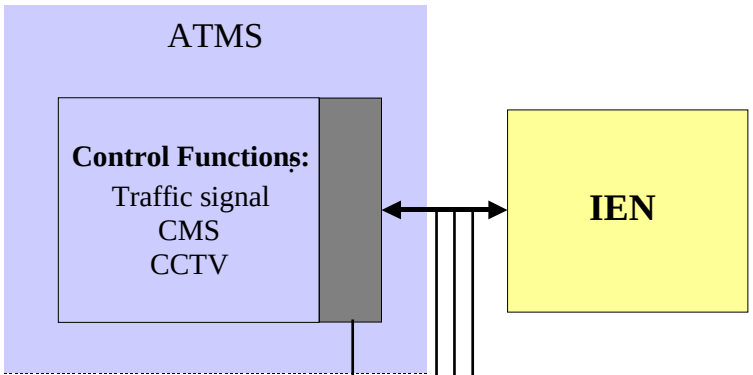
IEN Architecture – Integration System Components



System Integration Functional Requirements:

- ATMS functions to support IEN operations
- Data being made available to the IEN by the ATMS
- Data being made available to the ATMS by the IEN
- Communications Interface

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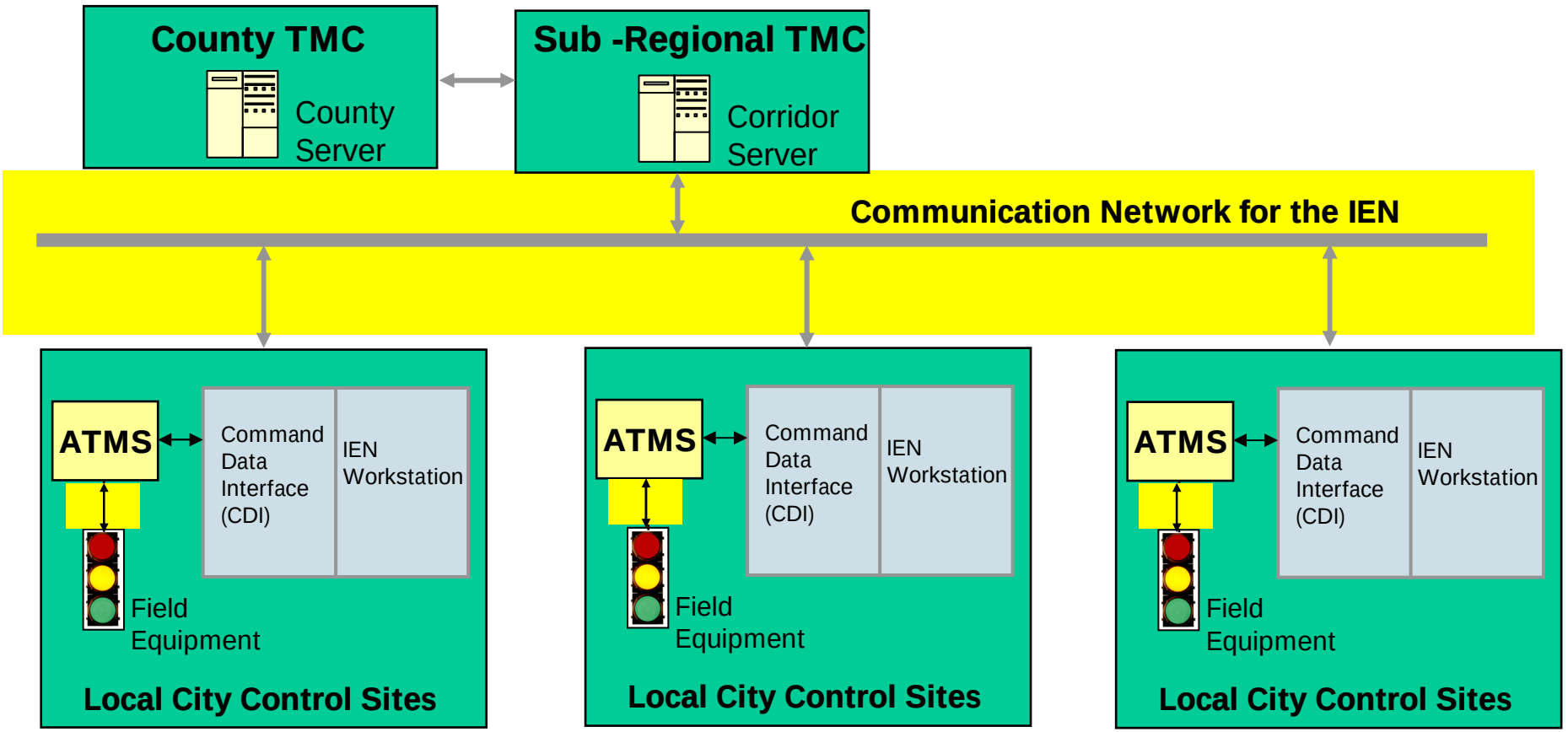
Requirements Components - Communications



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Allocation Of Functionality

	Traffic Control	CCTV Viewing Only	CCTV	CMS
Commerce	X		X	
Downy	X		X	
La Mirada	X	X		
Montebello	X	X		
Pico Rivera	X	X		
Santa Fe Springs	X		X	X
LA County DPW	X		X	
Caltrans D7	X		X	

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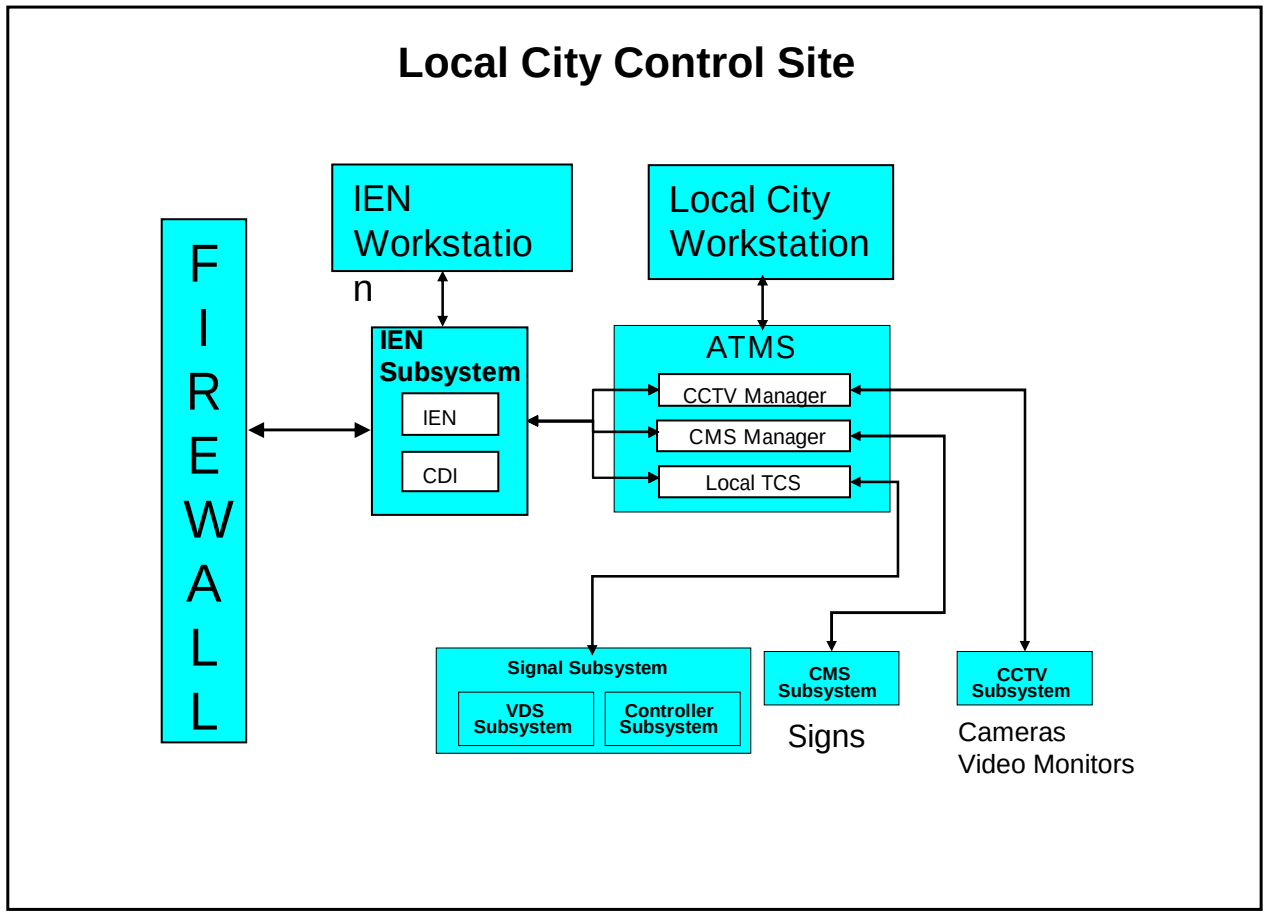
Local City Control Site (Typical)



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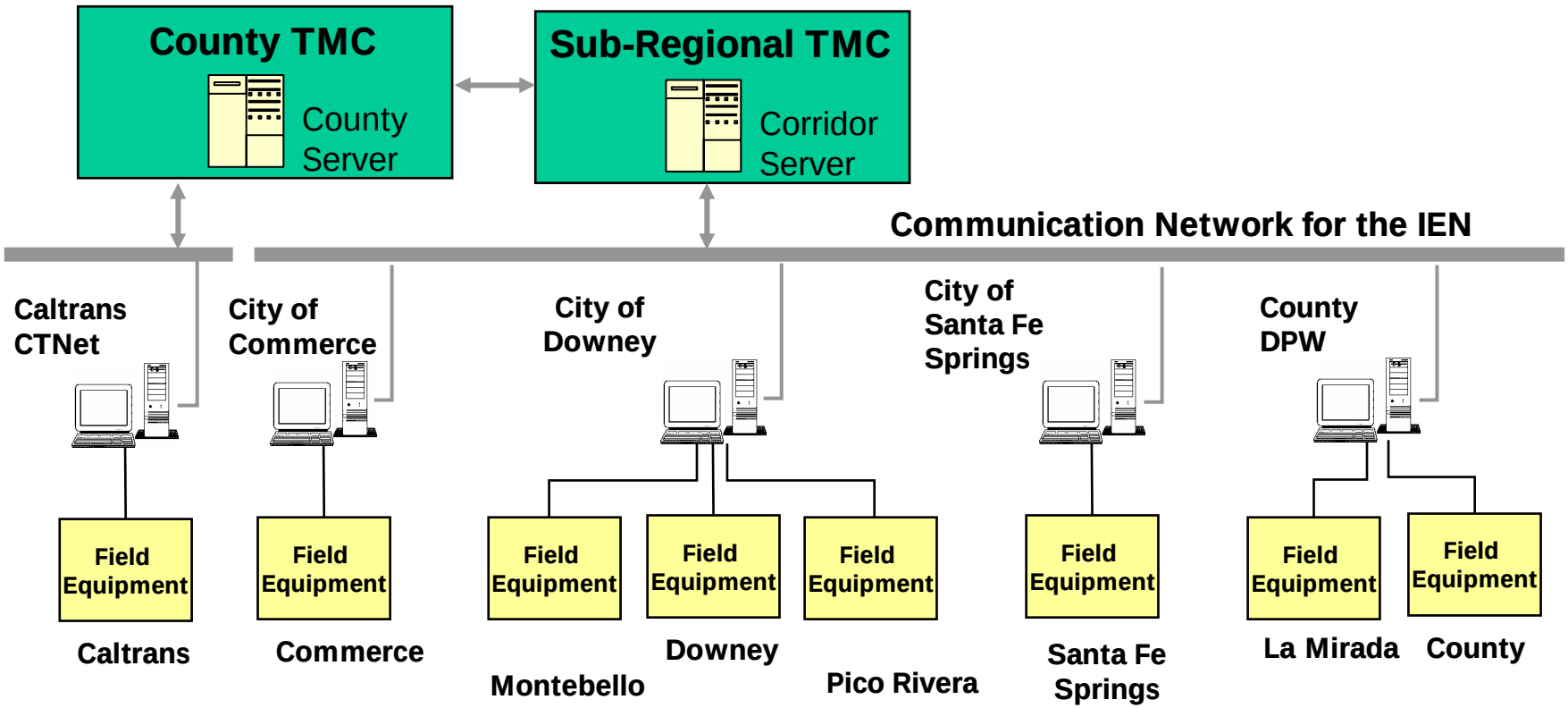
I5 Telegraph Road Proposed Corridor Architecture



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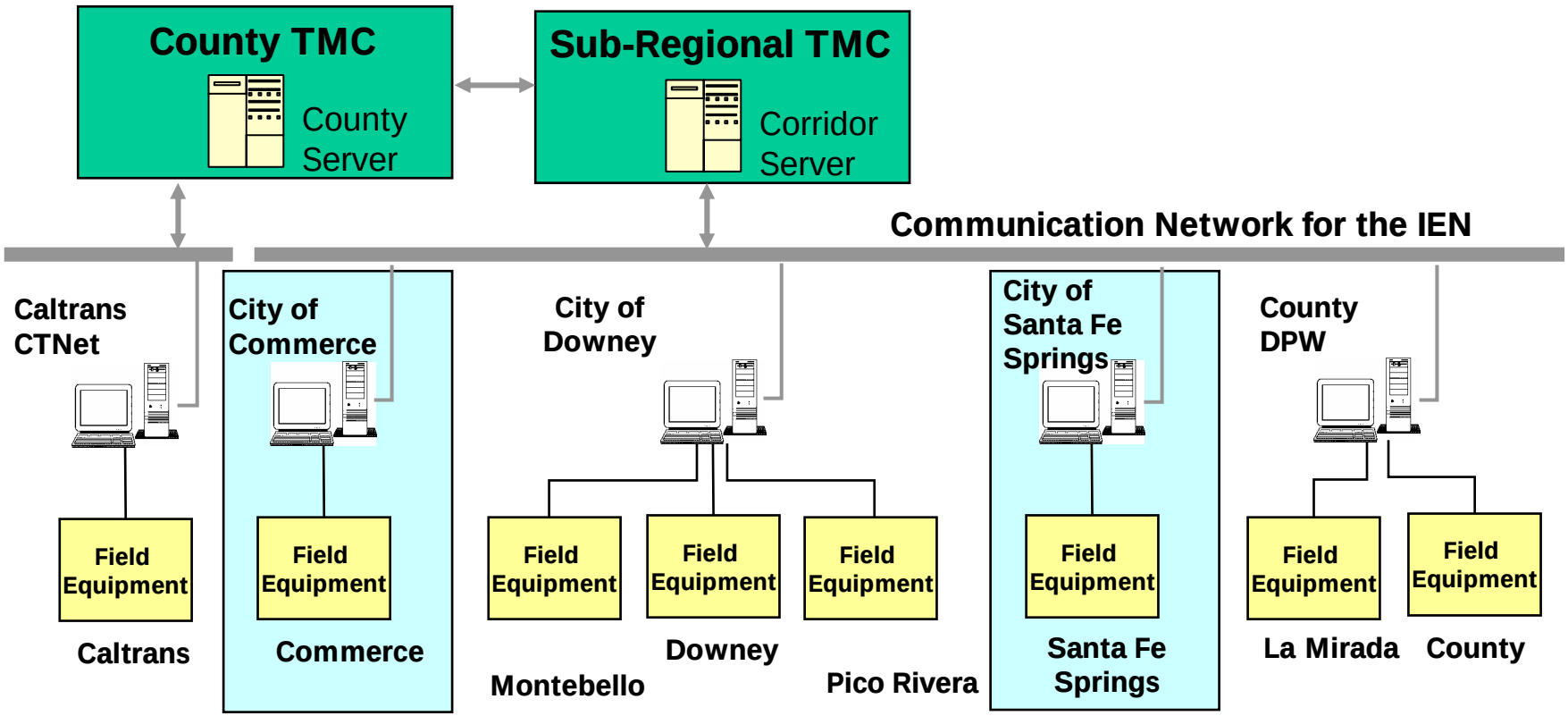
I5 Telegraph Road Proposed Corridor Architecture :
Stand Alone LCC's



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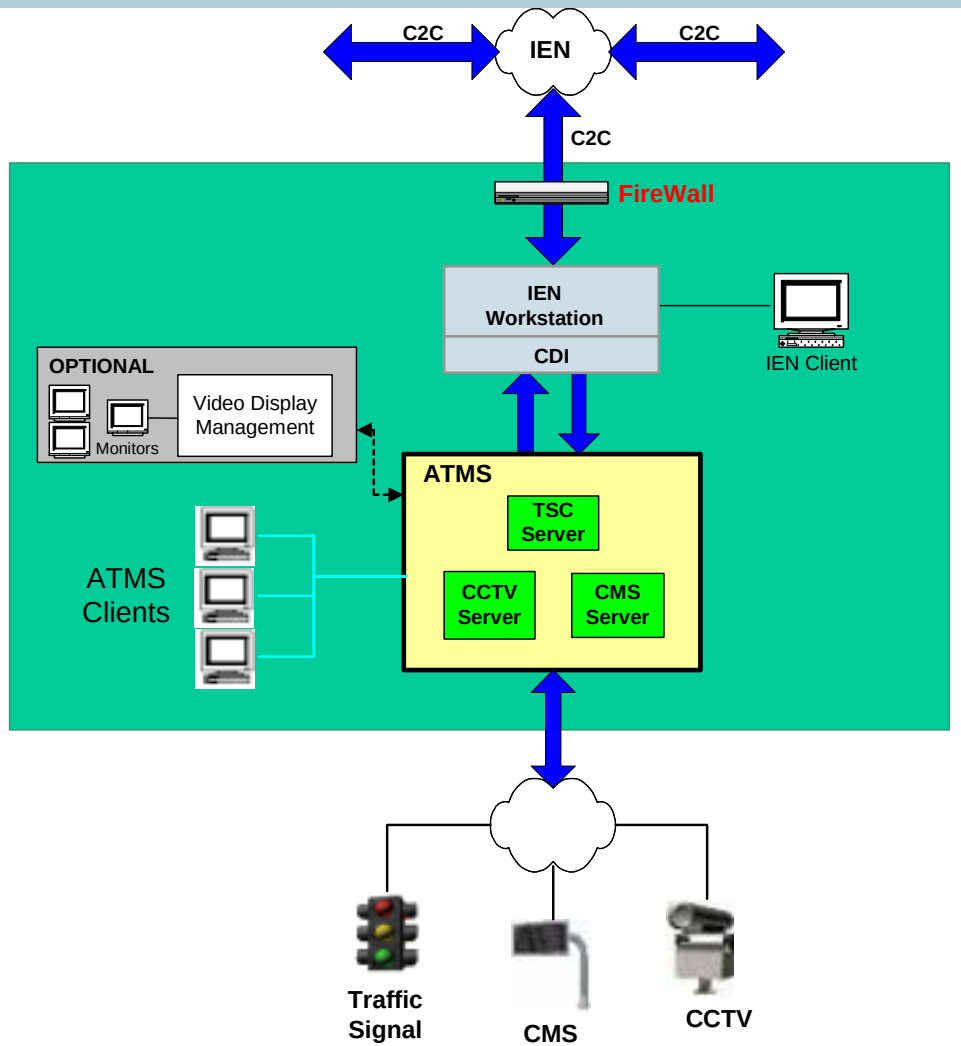
LCC Logical Architecture: Stand Alone TMC



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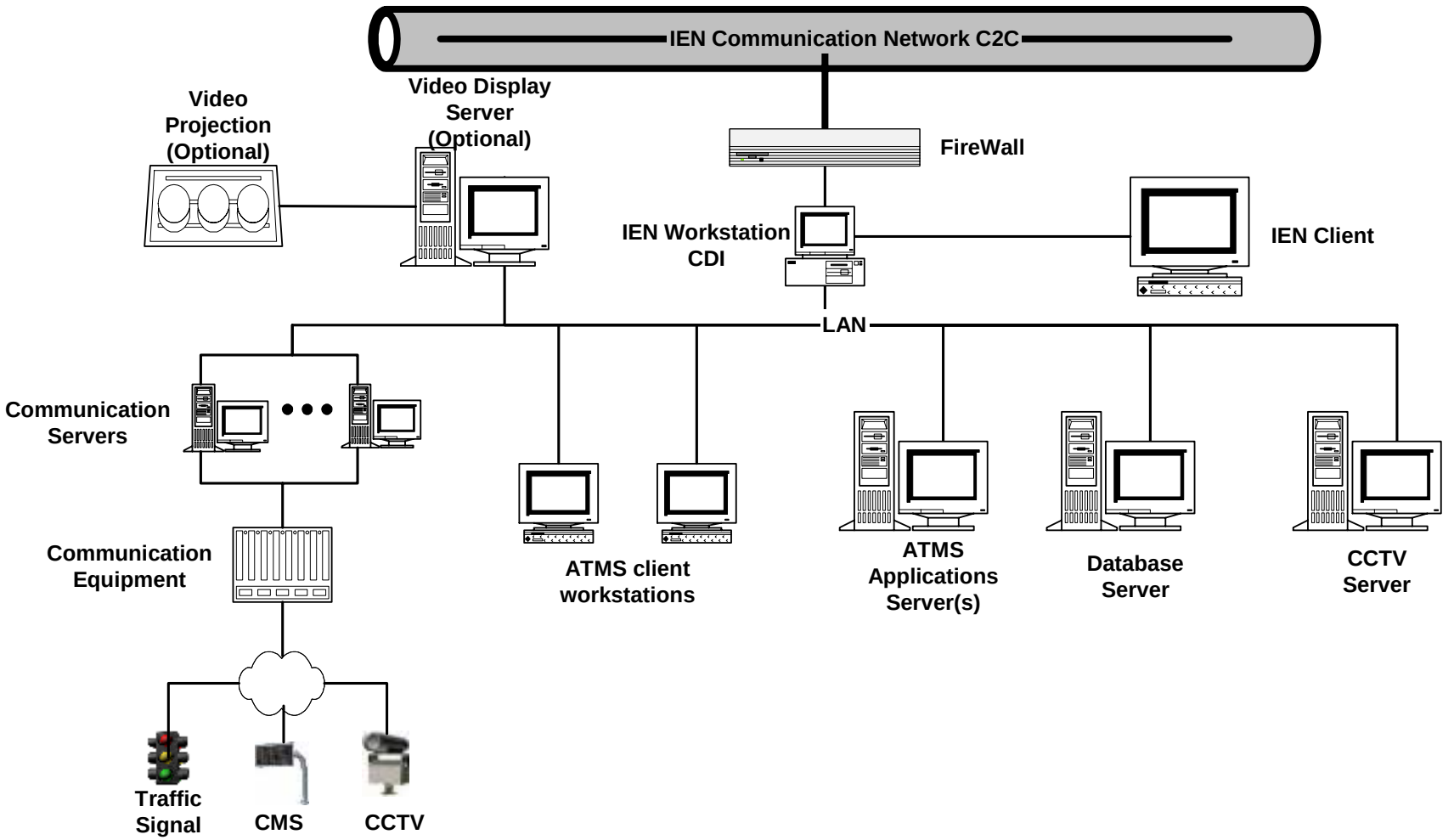
Stand Alone LCC Physical Architecture



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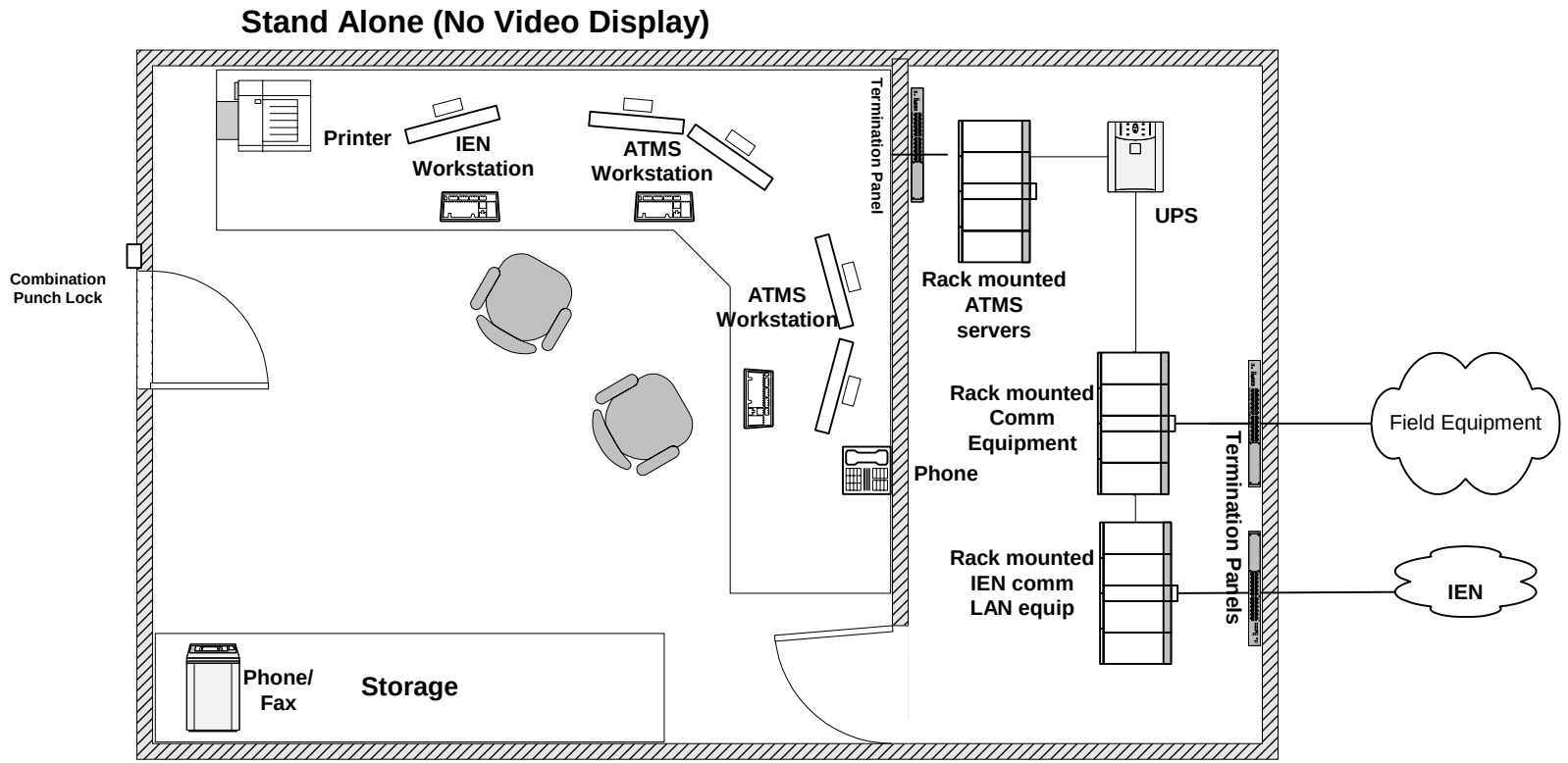
Stand Alone LCC Physical Layout



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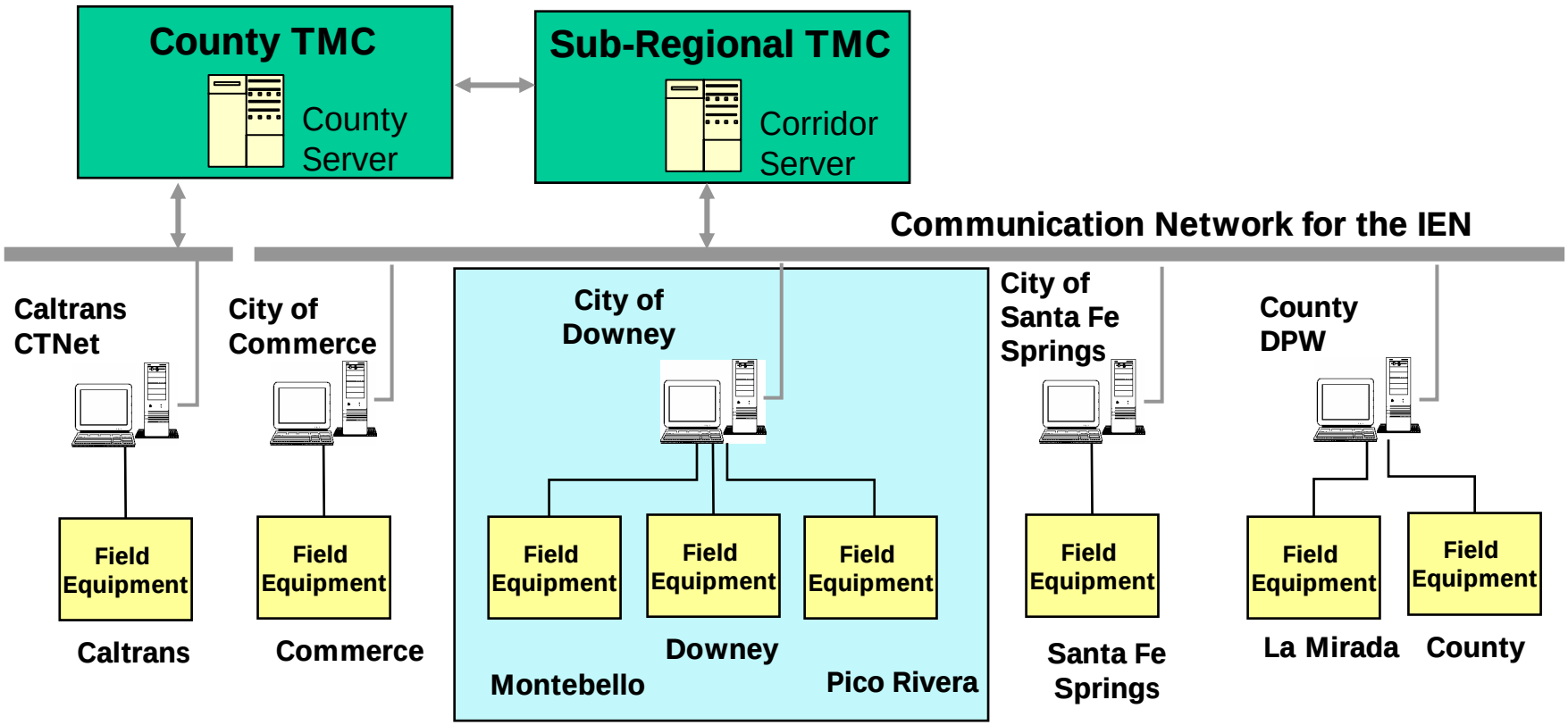
I5 Telegraph Road Proposed Corridor Architecture: LCC with Hosting



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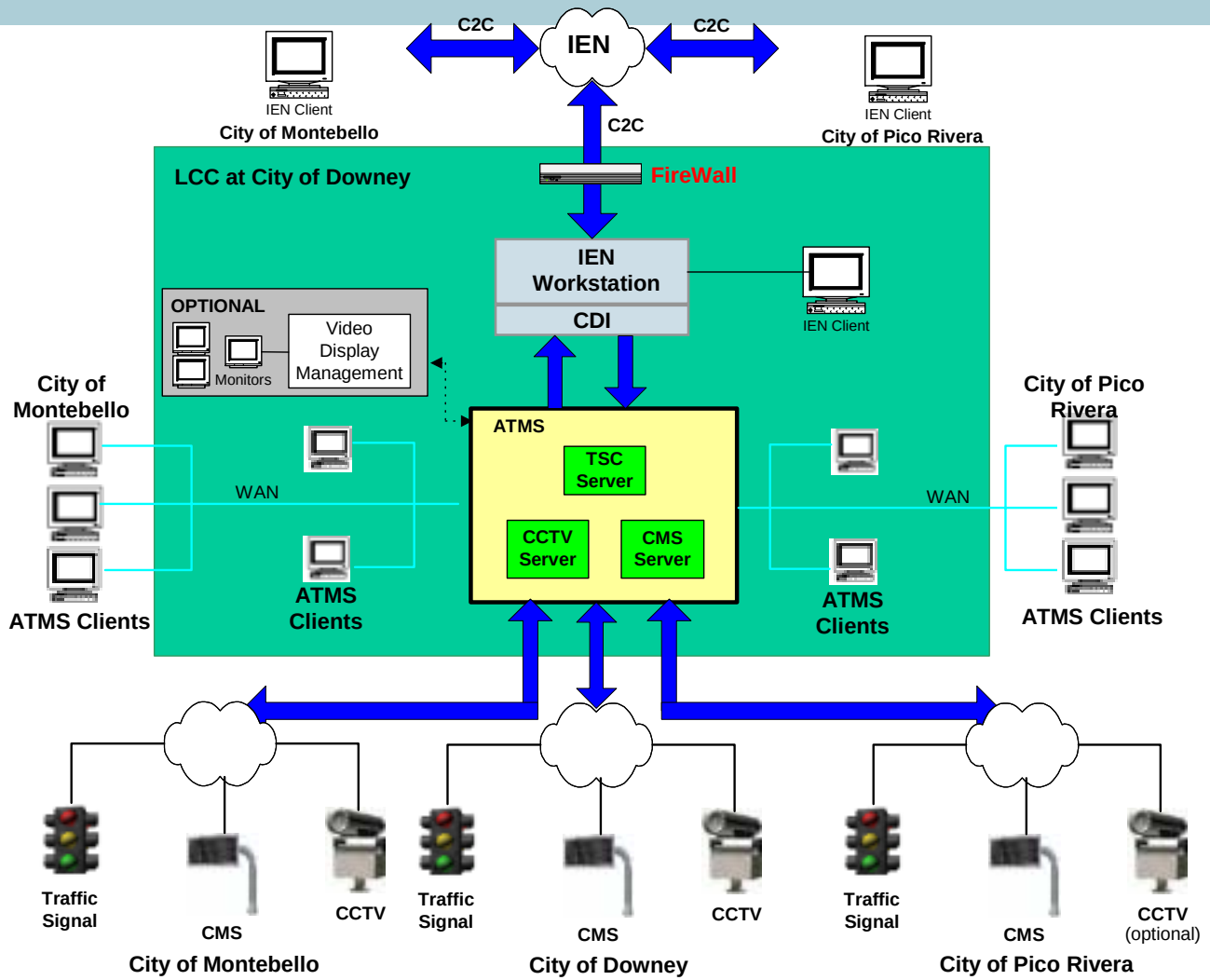
LCC with Hosting-Logical Architecture



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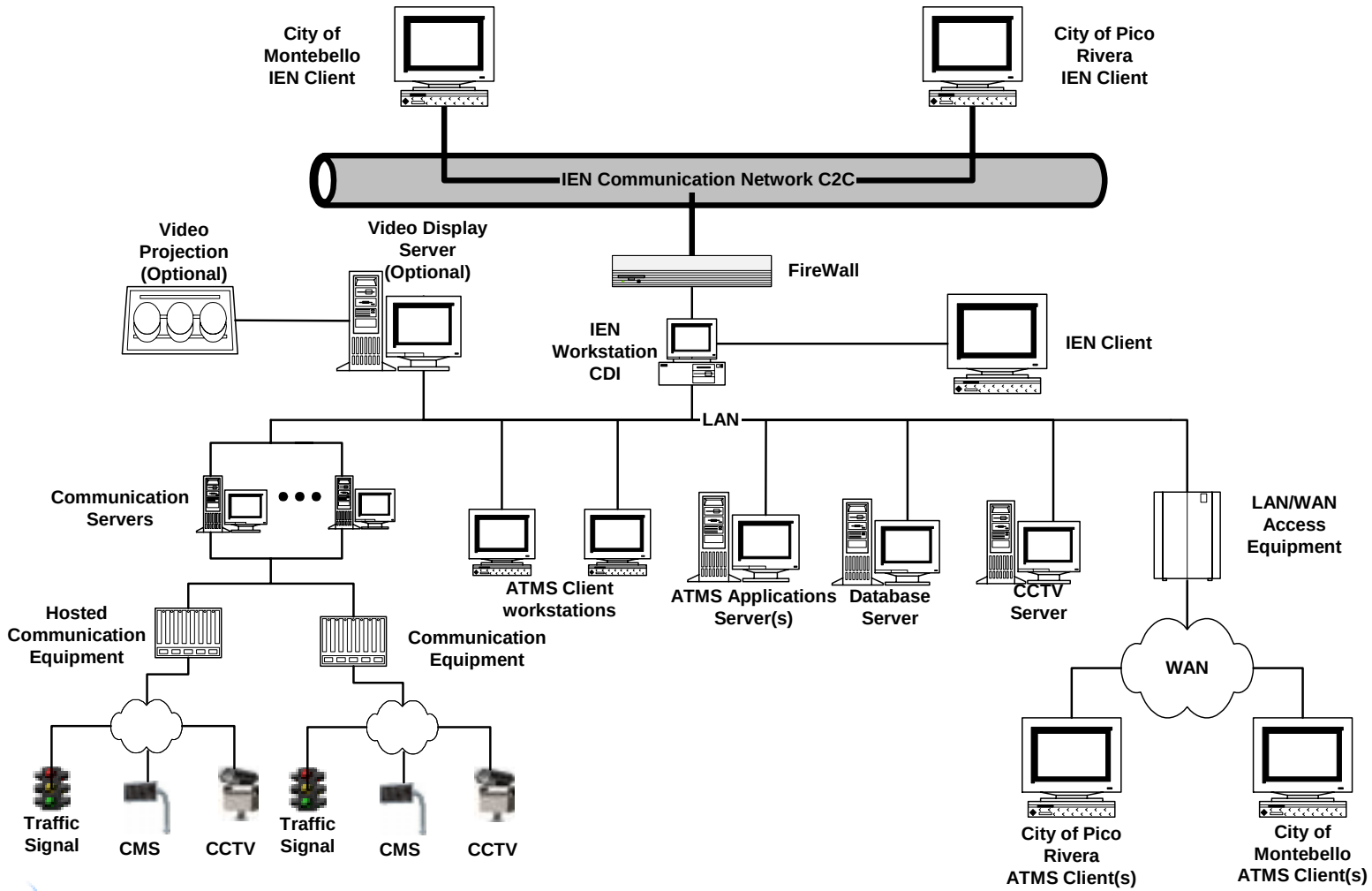
LCC with Hosting – Physical Architecture



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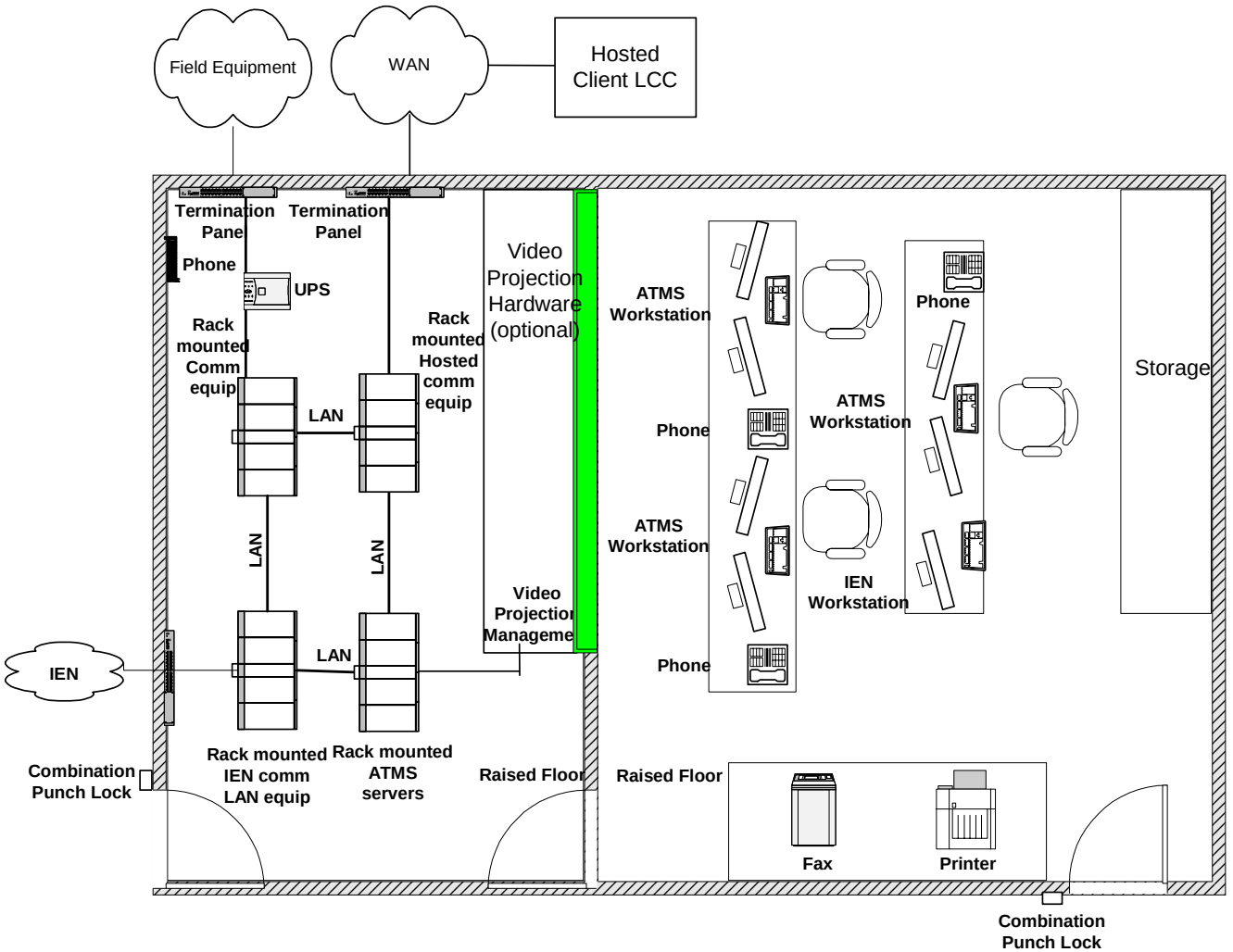
Hosting LCC Physical Layout



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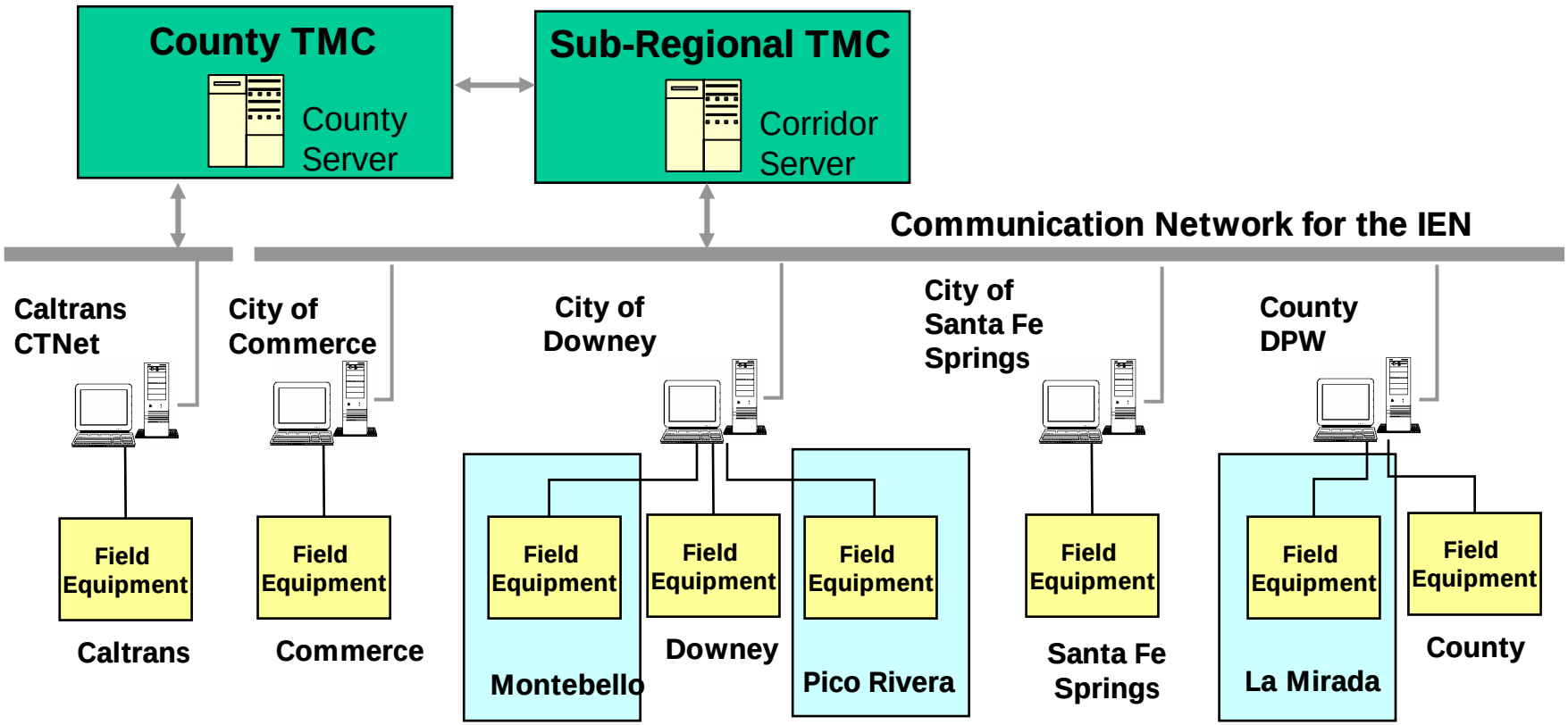
I5 Telegraph Road Proposed Corridor Architecture: Client Only



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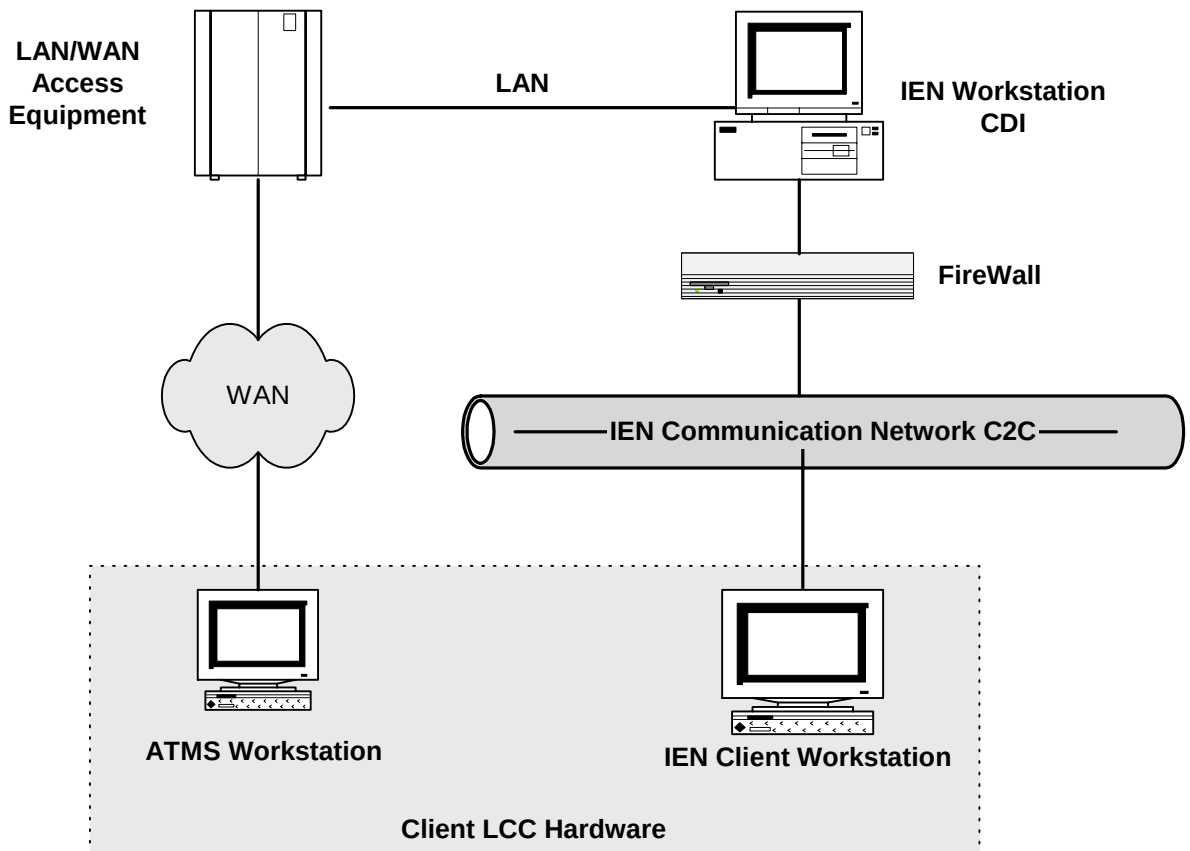
Client Only LCC Physical Architecture



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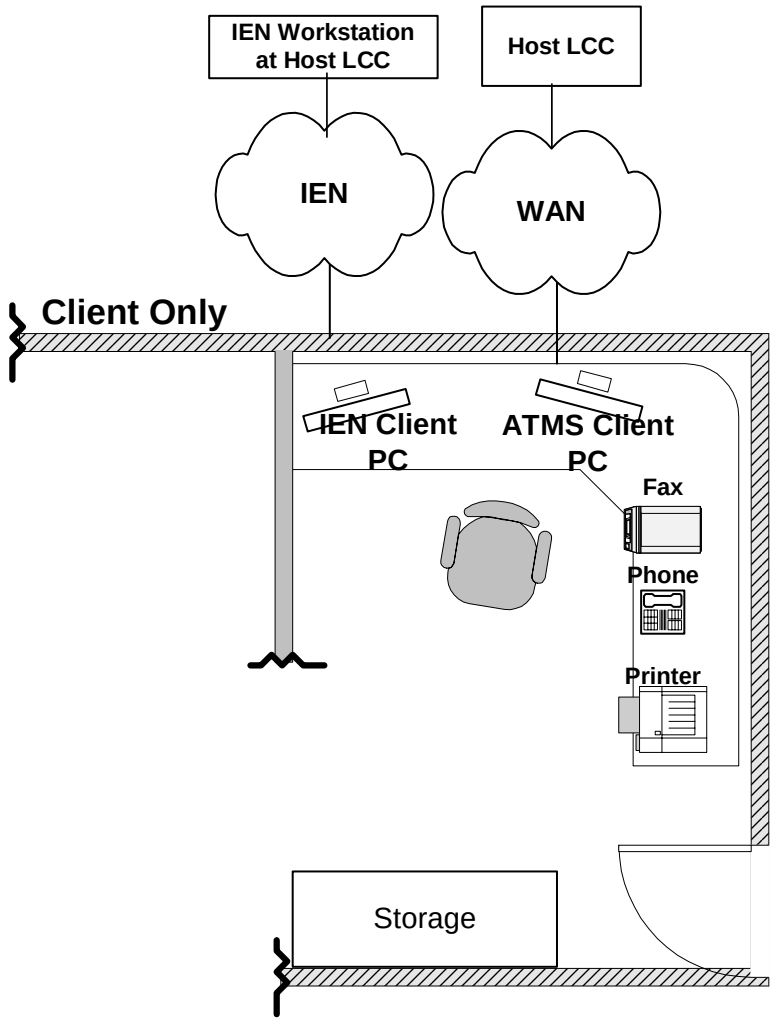
Client Only LCC Physical Layout



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Up-coming Work

- High Level Design Report
  - Detection Upgrades (March)
- Alternatives Analysis (Draft – April)
  - ATMS
  - Communications
- Recommendations (Draft – June)
  - ATMS/Detection/Communications
  - Locations for Local City Control Sites
- Conceptual Design (Draft – July)

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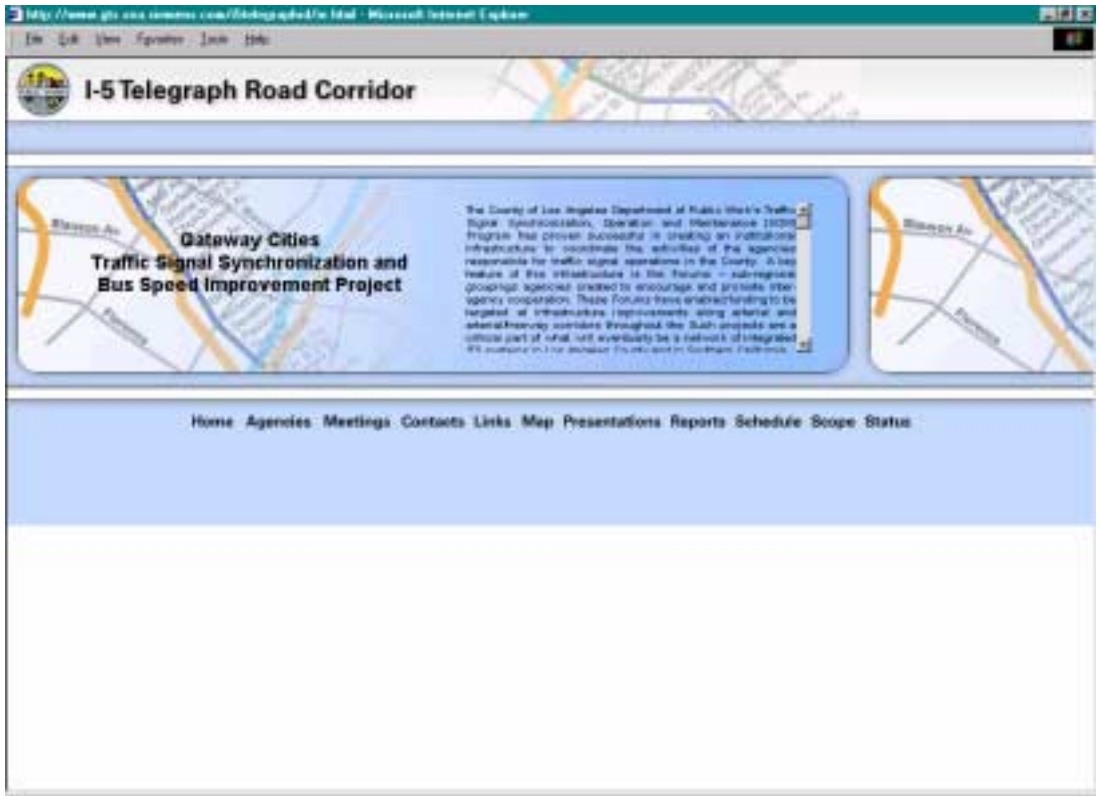
Project Web page



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