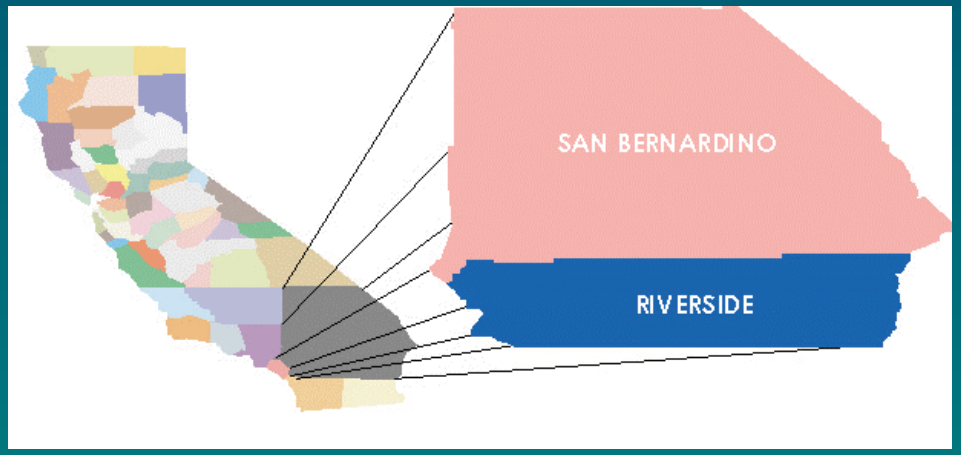
Inland Empire Regional Intelligent Transportation Systems (ITS) Architecture



June 2003

What is ITS?

Intelligent Transportation Systems

Use electronics, communications, and computers in an integrated manner to improve the efficiency and safety of roadways.

Offers non-traditional solutions to transportation problems and provides an alternative to new infrastructure.

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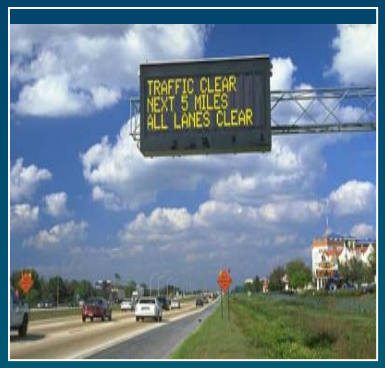
Examples: ITS Categories

Roadway Mgmt



Traveler info

Rural Systems

Goods Movement

Emergency Mgmt

Electronic Tolls

Transit Systems

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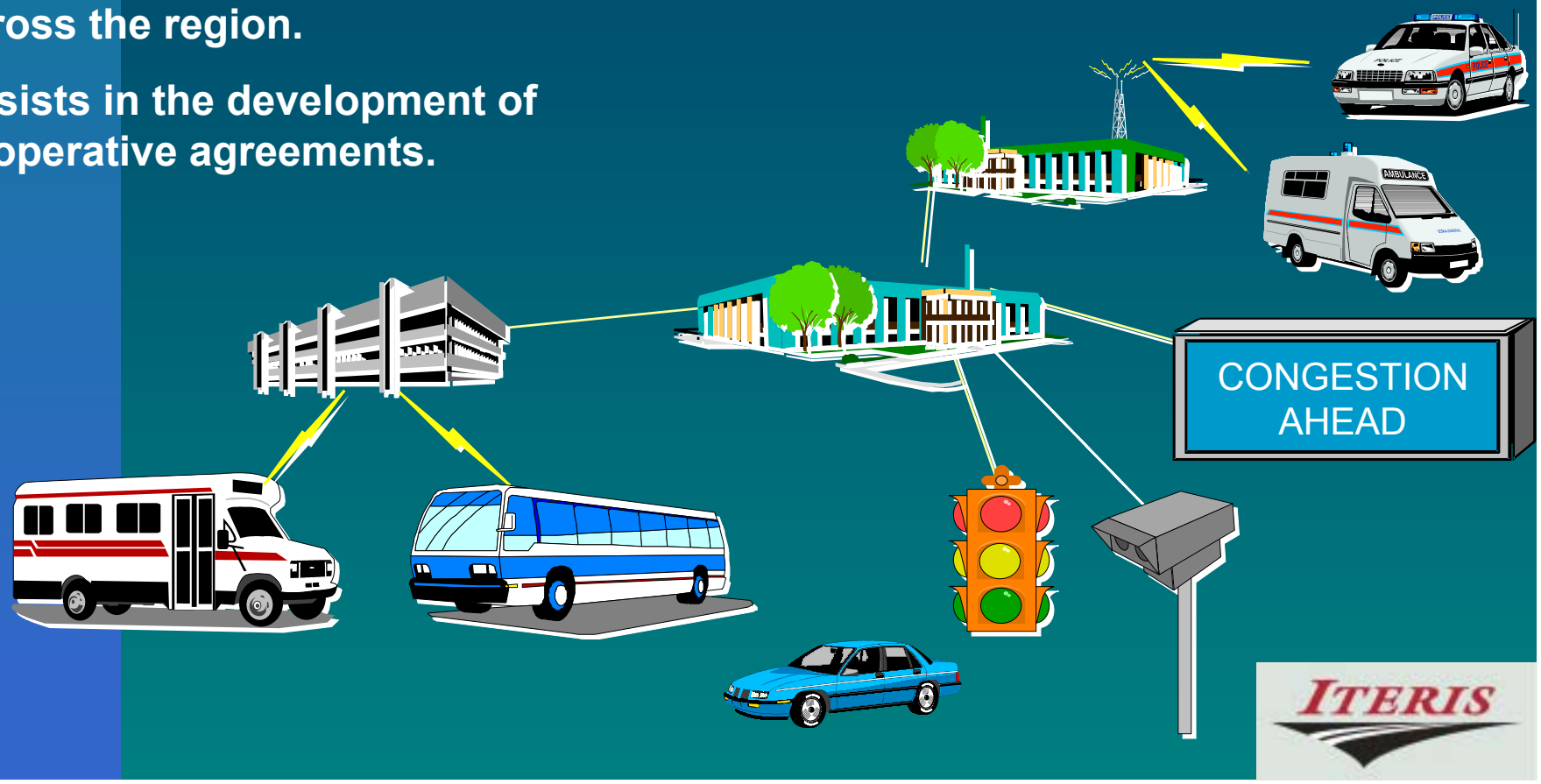
What is a Regional ITS Architecture?

Provides a structured framework for systems to communicate.

Helps to provide more ITS services across the region.

Assists in the development of cooperative agreements.



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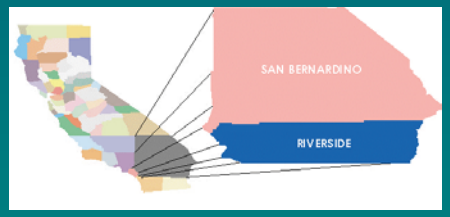
What does a Regional ITS Architecture include?

- Description of the Region
- List of Stakeholders
- Current and Future Transportation Systems
- Information Exchange Needs
- Agency Roles & Responsibilities
- System Functions
- Applicable Standards
- List of Projects to Achieve Goals
- Needed Agreements



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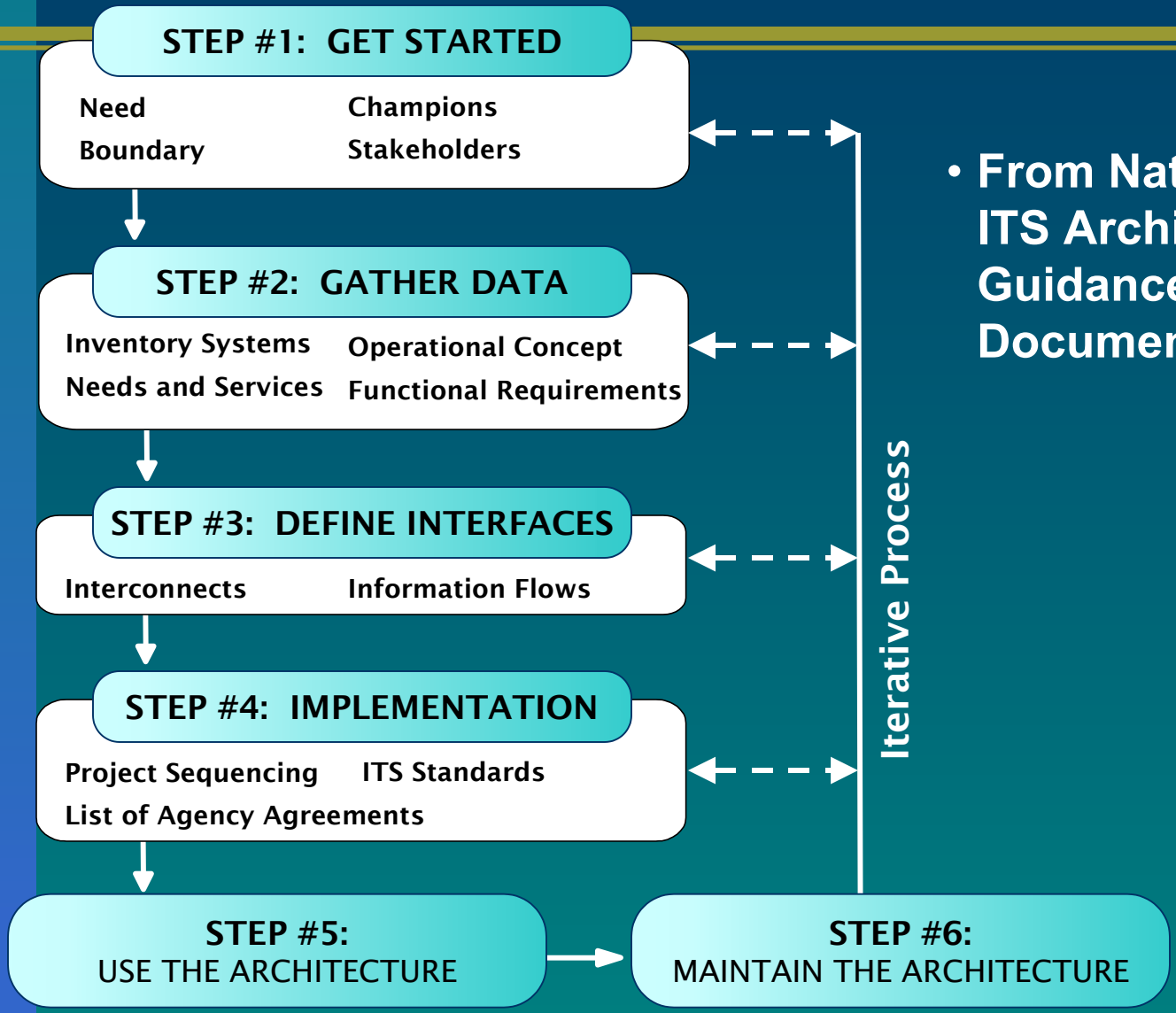
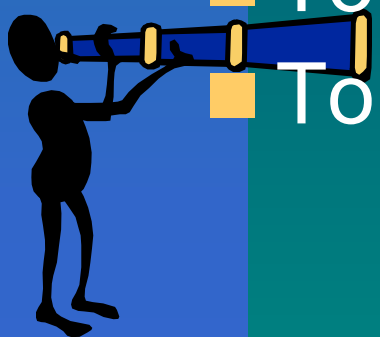
Process for Regional ITS Architecture Development



- From National ITS Architecture Guidance Document

Why develop a Regional ITS Architecture?

- To define integration opportunities
- To provide for information sharing
- To efficiently structure implementations
- To prepare for future expansion
- To assist in estimating/leveraging funding
- To deploy consistent projects/systems
- To comply with Federal rule



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Architecture Terms

- Stakeholders
- Inventory
- Needs
- Services
- Operational Concepts
- Functional Requirements
- System Interfaces and Flows

Public/Private Agencies that own/operate transportation systems or have an interest in regional transportation issues

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Architecture Terms

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Collection of Transportation Systems for which there is an opportunity for integration

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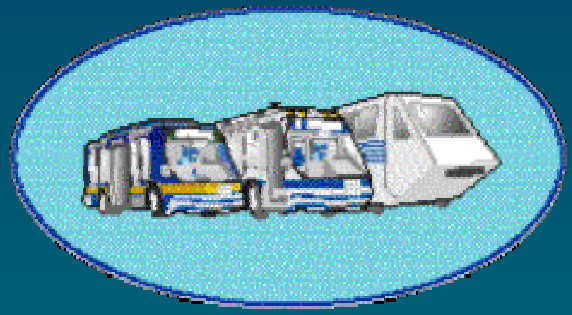
Examples of System Inventory Data

Traffic Management



Transit Management

Public Safety

Traveler Information

Roadway Maintenance

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Architecture Terms

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List of existing regional transportation problems and potential future challenges

Example of Needs met by ITS

- Needs are a Description of the Region's Transportation Problems
  - May be general needs (e.g. reduce congestion)
  - May be specific (e.g. provide up to date weather information to travelers)

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Architecture Terms

- Stakeholders
- Inventory
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Things that can be done to improve the efficiency, safety, and convenience of the region's transportation system

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Architecture Terms

- Stakeholders
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Definition of each stakeholder's role in providing ITS services

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Architecture Terms

- Stakeholders
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Tasks or activities performed by each system in the region

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Architecture Terms

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Description of which systems need to be connected to each other and what information should be exchanged to meet needs

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Plan History and Timeline

- Funding Became Available from City of Fontana
- Project Performed by Iteris, Inc.
- Project Advisory Committee Oversaw Efforts
- Began January 2003 / Completed June 2003
- Conducted 5 Workshops & Numerous Individual Meetings

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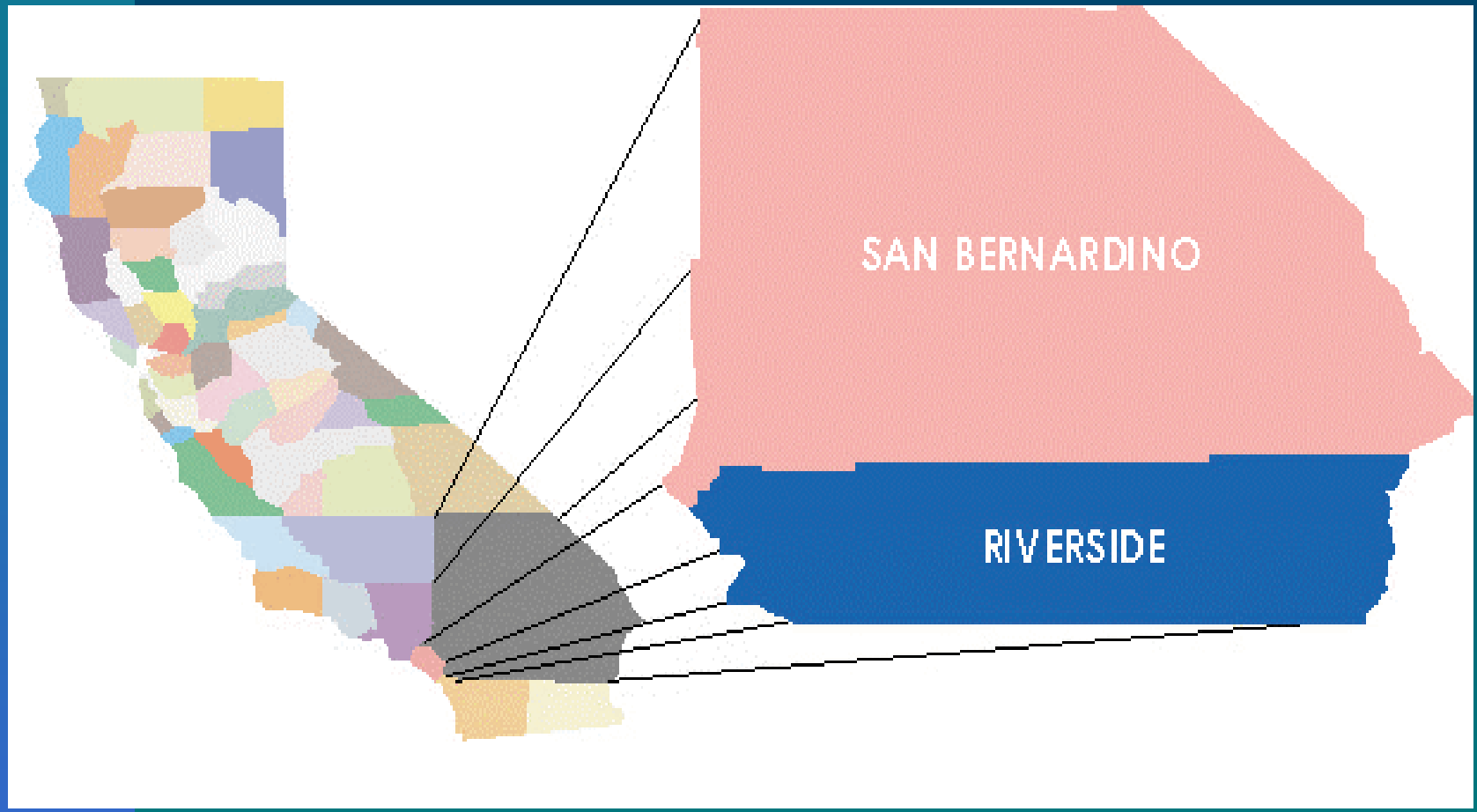
Geographical Boundary of our Regional ITS Architecture



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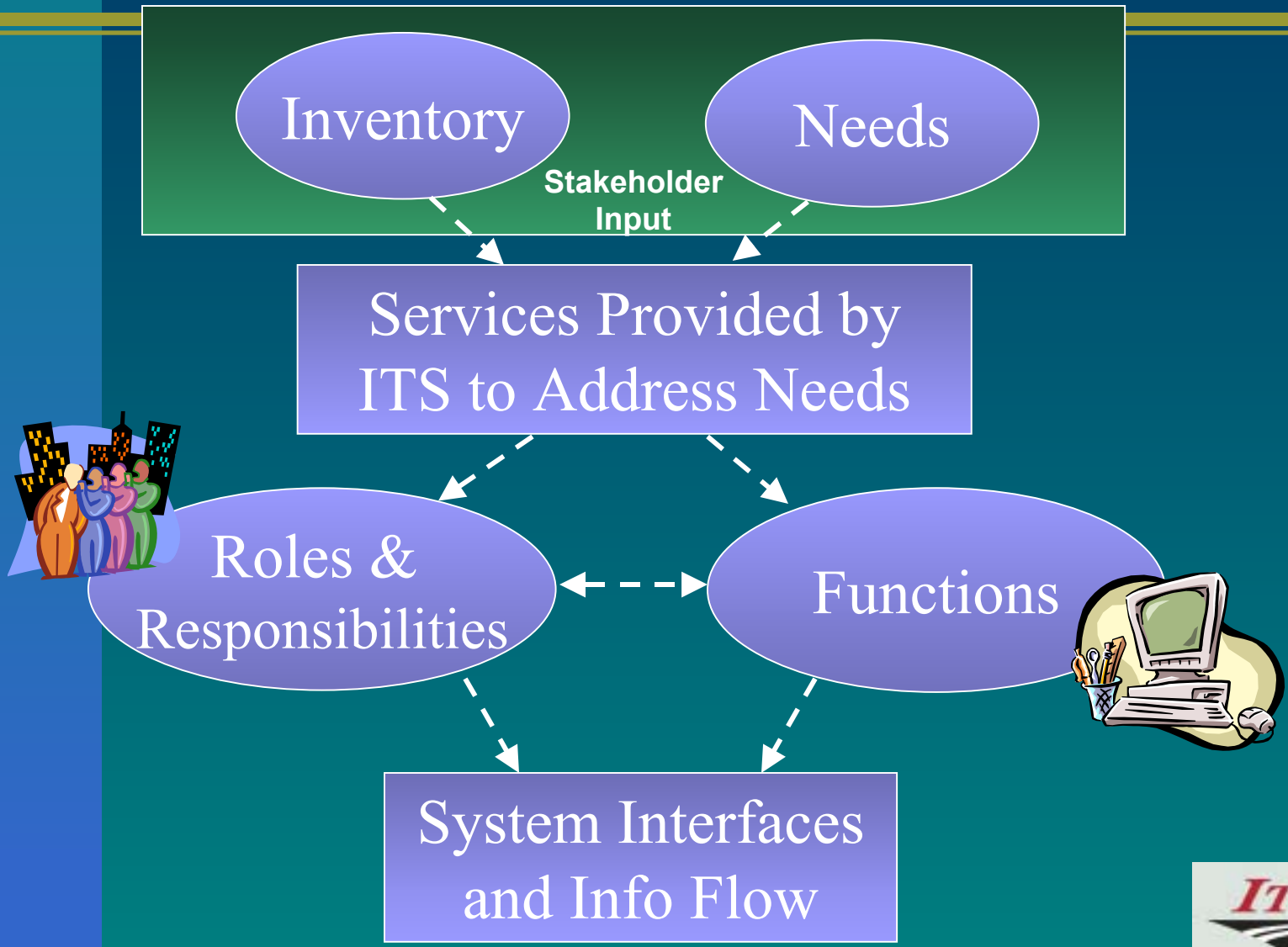
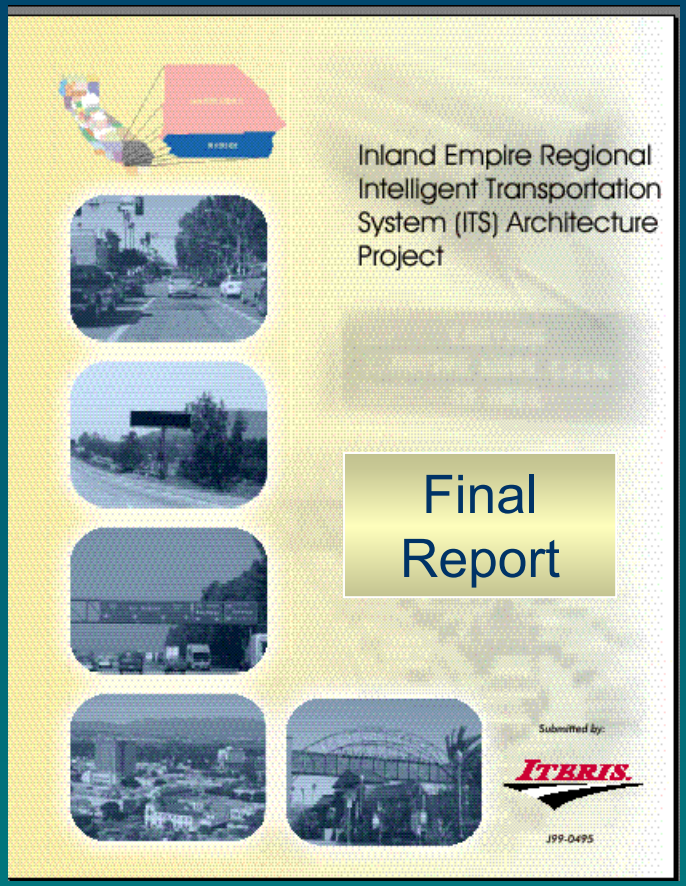
Architecture Process



Use of Regional Architecture

- In Planning
  - To align projects with Federal funding requirements
- In Design
  - To provide technical guidelines, functions and standards for ITS projects to follow
- In Deployment
  - To ensure the ability of data exchange and system integration



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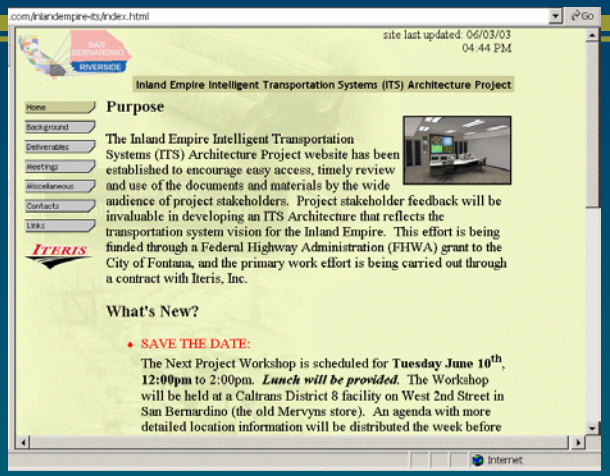
Web Site URL



www.iteris.com/inlandempire-its

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Next Steps

- Circulate the Plan to Stakeholders
- Establish Update/Maintenance Process
- Work with Caltrans/FHWA on Funding Review
- Provide Input to SCAG Southern California Architecture Plan
- Coordinate with Statewide Architecture Process

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Inland Empire Regional Intelligent Transportation Systems (ITS) Architecture