REPORT

DATE: April 7, 2005

TO: Regional Council

FROM: Transportation & Communications Committee
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SUBJECT: Approve the Southern California Regional ITS Architecture

EXECUTIVE DIRECTOR'S APPROVAL:

RECOMMENDED ACTION:
Approve the Southern California Regional ITS Architecture.

BACKGROUND:
The FHWA Rule and FTA Policy, 23 CFR 940.9 and 940.11, require that a region that is currently implementing ITS projects must develop a regional ITS architecture to guide their deployment by April 8, 2005. The National ITS Architecture shall be used as a resource in developing the regional architecture. The regional ITS architecture shall be on a scale commensurate with ITS investment in the region. The regional architecture shall contain:

1. Description of the region
2. Identification of the participating agencies and stakeholders
3. An operational concept that identifies roles and responsibilities of stakeholders
4. Any agreements required for operations
5. System functional requirements (high level)
6. Interface requirements and information exchanges with planned and existing systems and subsystems
7. Identification of ITS standards supporting regional and national interoperability
8. Sequence of projects required for implementation

The Rule requires that all ITS projects, and projects with ITS elements, funded through the federal transportation trust funds shall be consistent with the regional architecture, in order to be eligible for the use of those funds.

SCAG, in cooperation and consultation with the Los Angeles County Metropolitan Transportation Authority, Orange County Transportation Authority, Riverside County Transportation Commission, San Bernardino Associated of Governments, Ventura County Transportation Commission, Imperial County, Southern California Regional Rail Authority, and the California Department of Transportation have undertaken an effort to develop the Southern California Regional ITS Architecture. This has been a bottom up effort building on and incorporating significant work already accomplished, updating that

work, and where necessary developing new work to meet the National Architecture requirement. SCAG will complete the required eight points for the Southern California Regional ITS Architecture through the effort described above by the April 8, 2005 deadline and asks that upon completion, that the regional architecture be accepted in compliance with the Regulation.

FISCAL IMPACT:
No direct impacts to SCAG, significant benefit to maintaining eligibility for the use of Federal funds in programming regional projects. th

Southern California Regional ITS Architecture Conformance with Federal Regulations contained in CFR 940.9 and 940.11.

Architecture Requirements

The following are requirements for conformity with CFR 940.9 and 940.11:

- Any region that is currently implementing ITS projects shall have a regional ITS architecture by April 8, 2005;
- A region is defined as being no less than the boundaries of the metropolitan planning area;
- ITS means electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system;
- The national ITS Architecture shall be used as a resource in the development of the regional ITS architecture;
- Participation should be from the following agencies as appropriate: Highway agencies; public safety agencies (e.g. police, fire, emergency/medical); transit operators; Federal lands agencies; State motor carrier agencies; and other operating agencies necessary to fully address regional ITS integration;
- The regional architecture shall include at a minimum the following:
    1. A description of the region;
    2. Identification of participating agencies and other stakeholders;
    3. An operational concept that identifies the roles and responsibilities of participating agencies and stakeholders;
    4. Any agreements (existing or new) required for operations;
    5. System functional requirements;
    6. Interface requirements and information exchanges with planned and existing systems and subsystems;
    7. Identification of ITS standards supporting regional and national interoperability;
    8. The sequence of projects required for implementation; and,
    9. Stakeholders shall develop and implement procedures and responsibilities for maintaining the architecture as needs evolve within the region.

The inclusion of all of the above in the architecture document satisfies the federal requirements for the documentation. To aid in the interpretation of some of these requirements the documents follow guidance contained in U.S. DOT publication "Regional ITS Architecture Guidelines – Developing, Using, and Maintaining an ITS Architecture for Your Region" prepared by the National ITS Architecture team October 12, 2001. Each of the documents includes all of the required sections interpreted in accordance with the published guidelines.

Conformity with Regional Definition

The Southern California Regional ITS Architecture is composed of regional ITS architecture documents that cover the six counties of the metropolitan planning area as required. They are as follows:

- Inland Empire Regional Intelligent Transportation Systems (ITS) Architecture (This includes the counties of San Bernardino and Riverside)
- Los Angeles County Regional ITS Architecture
- Orange County Regional ITS Architecture
- Ventura County Regional ITS Architecture
- Imperial County Regional ITS Architecture

In addition there is a document that covers multi-county systems and is called:

- Southern California Regional ITS Architecture – Multi-County Issues.

The architectures for Orange, Ventura and Imperial County are new documents created under the contract with NET and agreed by stakeholders. The Inland Empire and Los Angeles County architectures were developed separately but have been fully adopted by their stakeholders.

Stakeholder Participation

The requirements stress stakeholder participation from a broad range of agencies. For the development of each architecture document extensive stakeholder outreach took place. Monthly meetings were convened, interviews were performed and questionnaires distributed and information retrieved to enable an inventory of ITS systems. This information is captured in the database of a software package specially developed by U.S. DOT. The database for each architecture is part of the final deliverables for the project. In some cases special workshops were held to target specific interests. Each architecture document records the outreach undertaken. A website was established for the project and all agendas, meeting minutes, presentations and deliverables for the new architectures were posted there for comment. Links were also inserted to the existing architecture web sites for the completed architectures. In appendices to the documents, are listed all of the stakeholders who contributed together with tables which record the disposition of comments received. Two comment periods were provided to stakeholders for the final draft deliverables accompanied by presentations to answer all questions and concerns. Stakeholders have agreed to maintain their architectures and to forward any updates to SCAG when requested to do so.

SCAG Architecture Maintenance

For the Southern California Regional ITS Architecture to remain in long-term conformance, SCAG will include all ITS project information in the tri-annual RTIP

process and will log all changes to the individual regional architecture documents. They will also be responsible for regularly convening the multi-county stakeholder group to monitor and review projects of significance for the whole Southern California Region. All Southern California Regional ITS Documentation will be placed on the SCAG website for information purposes.