



# **STARNET Interagency Coordination Procedures**

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Prepared for the Sacramento Area Council of Governments  
and associated agencies in the Sacramento region

by Siemens ITS



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# 1 Introduction

The Sacramento Transportation Area Network, or STARNET, is an information exchange network that is used by the operators of transportation facilities and emergency responders in the Sacramento region of California. STARNET enables the real-time sharing of data and live video, provides information to the public via the 511 phone system and associated web site, and facilitates joint procedures pertaining to the operation of roadways and public transit, and public safety activities. STARNET thereby assists operations personnel in the coordination of their activities and in providing the public with comprehensive information about current travel conditions and options.

This document, titled STARNET Interagency Coordination Procedures, describes the steps that STARNET operators should take to coordinate their STARNET-related activities with other operators. In this context, an “operator” is any person employed or contracted by an organization (e.g., public agency) involved in the operation or maintenance of STARNET, and who uses or maintains any of the STARNET software intended for operators, or uses or maintains any of the equipment and data communications links involved in STARNET. Such equipment includes:

- *Field devices* such as vehicle detectors, traffic signals, changeable message signs, CCTV cameras, and ramp meters which provide data or video to STARNET.
- Public *transit vehicles* for which data are provided to STARNET.
- *Computers* used to communicate with the above field elements, to operate STARNET-related software, to store STARNET-related data, or to make STARNET-gathered information available to the public.
- *Communications equipment* and links used in the above elements.

Hence this document is aimed at operations and maintenance personnel whose actions could enhance or hinder the effectiveness of STARNET. The goal is to have such personnel consider the potential impact of their actions (or lack of action) on other STARNET users including the public, and to follow some fairly simple principles and procedures that can maximize positive impacts and minimize negative impacts.

STARNET provides real-time information sharing tools not previously available to transportation and public safety agencies in the Sacramento region. The effective use and maintenance of such tools involves consideration of facilities beyond those most agency personnel have traditionally been involved with. In particular, it requires personnel to consider their role in, and impact on, a regional real-time transportation and safety information collection and distribution system.

Agency personnel have always coordinated and cooperated with their counterparts in the operation and maintenance of roadways and transit systems. To the extent that such interaction occurred in real-time, it typically involved voice communication by radio or telephone, or perhaps text messaging.

STARNET is different in that it provides web-based software that operators can access from any computer to see a map of the whole region showing the current status of all-agencies' field devices, transit vehicles, and current incidents and events. All personnel, no matter which agency they work for, have access to the same shared information (real-time data and live video), thus providing a common view of current conditions.

Operators can also enter information they may have about a current incident or event and others can see that information instantly. They can also exchange text messages with each other. And all relevant information is instantly made available to the public via the 511 phone system and related web site.

STARNET is a powerful new tool, but its effectiveness relies on all the involved agencies using it appropriately and maintaining their part of it. This document explains basic considerations and procedures for using and maintaining STARNET. Other documents provide users' manuals for specific hardware and software. Such element-specific information is not repeated here. Instead, this document provides an overview of the system and the principles and general procedures that should be followed to maximize the effectiveness of STARNET for everyone.

This is a living document that is updated as needed to reflect changes in the STARNET system or involved agencies. Check the STARNET information web site for the latest version. Please also report errors, omissions, and suggestions for improvement to the STARNET coordinator. See the STARNET Contacts and Information Sources section of this document for web sites, e-mail addresses, and other contact information for involved personnel. Where feasible, references to other sections of this document and to other information sources are hyperlinks.

Agencies are encouraged to incorporate STARNET-related procedures into their personnel training programs and into their routine operating procedures.

## 2 STARNET Agencies and Components

STARNET uses the Condition Acquisition and Reporting System (CARS) suite of software modules developed and maintained by a Portland, Oregon, firm named Castle Rock. The server computers are remotely hosted (in \_\_\_) and use the Internet for communication with agency computers and with users. See separate user documentation for CARS.

The following agency systems communicate with the STARNET servers so as to supply or receive data. A few also supply action requests to, or receive action requests from, STARNET. Additional agency systems may be added to STARNET in the future.

**Table 1 – Systems Communicating with STARNET**

<b>Agency System</b>	<b>Sent to STARNET</b>	<b>Received from STARNET</b>
California Highway Patrol	Event (incident) data.	

Computer Aided Dispatch System		
Sacramento Regional Fire/EMS Computer Aided Dispatch System	Event (incident) data.	
Caltrans Freeway Performance Measurement System (PeMS)	Vehicle detector counts, occupancy, speed.	
Caltrans District 3 Freeway Management System (ATMS)	Ramp meter locations. Changeable message sign location and status data.	
Caltrans District 3 Front End Protocol Translator	Ramp meter status data.	
Caltrans Planned Lane Closure System	Event (planned lane closure) data.	
Sacramento Traffic Signal System	Traffic signal location, status, detector data, and pattern change requests.	Traffic signal detector data and pattern change requests.
Sacramento County CCTV Cameras	Live video.	CCTV camera control requests.
[More to be added]		
Sacramento Region 511		Most of the above data.
STARNET Third Party Data Feed Server		Most of the above data.

The flow of data between these systems and the STARNET servers is often via one or more intermediate computers. These computers translate data into formats suitable for exchange with STARNET and other remote systems. Where such intermediate computers were installed as part of the CARS software deployment, they are called Stargates.

In addition to automatically receiving data and action requests from computer and closed circuit television (CCTV) systems, STARNET also receives data and action requests from agency personnel using the system. Here such personnel are called “operators”. Human operators are a major and critical source of real-time event (incident) data, are consumers of live video, generators of action requests (commands) for camera control, and also serve to check that the automatic data flows are operational.

Separate documents (\_\_\_\_\_) describe in detail the computers, communications equipment, communication links, software components, and user interfaces involved in STARNET. Such documentation is updated as changes are made. STARNET is continually expanding and changing as new agencies or features are added, equipment and software are updated, and new communication links become available. [Add an architecture diagram here once the extent of the initial system is known.]

Note that events and incidents are the same thing in STARNET parlance, and include both planned and unplanned events. Examples of planned events include transportation facility construction or planned maintenance, parades, sporting or entertainment events, planned transit service changes, and planned STARNET maintenance. Examples of unplanned events include roadway accidents, transit service disruptions, unusual traffic congestion, fires and unusual weather conditions that affect transportation facilities, emergency maintenance activities, and medical emergencies that affect transportation facilities.

### **3 STARNET Dos and Don'ts**

Operations and maintenance personnel are encouraged to use and maintain STARNET in ways that enhance the effectiveness of the region's transportation facilities and emergency response. The following are examples of good practices.

1. Familiarize yourself with STARNET's user interface and capabilities. Learn what information is available to you from the system and what information you can provide to the system. Stay current with the latest enhancements to the system. Get over the initial learning curve and be a regular user.
2. Communicate regularly with your counterparts in other STARNET agencies to maintain familiarity and an effective working relationship. Consider yourself part of a regional team responsible for continually improving mobility and safety. STARNET is your shared tool.
3. Configure STARNET to automatically alert you, via text messages to your cell phone, of events (incidents) relevant to you. Relevant events include those that occur on facilities outside of your agency's jurisdiction, but in which your agency may be able to assist or which may indirectly affect your agency's facilities or constituents.
4. Monitor STARNET continually, as you might monitor your e-mail. When a computer is available to you, whether at your desk or elsewhere, have the STARNET user interface open at all times so you can easily check the status of current events and field devices or interest.
5. Contribute information about transportation-related events. When you have information that may be useful to the public or other operators, enter it immediately using the STARNET event editor. Create a new event if necessary. When you see information entered by others that you know or suspect to be inaccurate or outdated, enter the correct or more current information. Consider what information you would like to have if you were a traveler affected by this

- event or an operator in another affected agency. See below for more detailed procedures related to event information sharing.
6. Use other agencies' CCTV cameras as needed. Take advantage of STARNET to access video from CCTV cameras operated by other agencies, and to control their pan-tilt-zoom cameras where feasible. Other agencies' cameras may be able to view a site of interest within your agency's jurisdiction or may provide a view of an event outside of your agency's jurisdiction but which is pertinent to your agency. Unless your agency owns the camera, don't move a camera that has been recently moved by another user – assume they are still using it. While you need to actively monitor the feed from a pan-tilt-zoom camera that has no lock capability, regularly move the camera a little to let others know you are still using it.
  7. Make all of your field devices and data available to STARNET as soon as feasible. When a new field device is installed, have STARNET configured to know its location and to obtain data from it.
  8. Encourage STARNET training and use by all personnel who could benefit from it or whose participation would benefit the STARNET system, other users, or the goal of improving mobility and safety in the region. Consider those who may need to use it during major emergencies even if not routinely.
  9. Transition away from alternative tools to STARNET where the same function can be performed with STARNET. Entering information in STARNET instead of an alternative tool ensures it is available to other agencies and the public where appropriate, and reduces the need for duplicate entries or actions.
  10. Report STARNET system problems or deficiencies. Inform maintenance personnel (perhaps in another agency) if you see some field device or STARNET component malfunctioning and an event has not already been created for it. Inform the STARNET coordinator if you have an idea for improving any aspect of STARNET.
  11. Consider the impact of your planned activities on STARNET. Before temporarily or permanently changing equipment or taking equipment out of service, consider if it is used or monitored by STARNET and what other STARNET components or users, including the public, may be affected. See below for more detailed procedures related to STARNET configuration management.
  12. Fix problems affecting STARNET as quickly as possible. When planning and performing maintenance, try to give priority to issues that impact STARNET. The effectiveness of the overall system is dependent on the maintenance activities within each agency. See below for more detailed procedures related to STARNET maintenance.
  13. Participate in on-going performance monitoring and improvements planning – for both the STARNET system and for interagency coordination. Using the STARNET event tracker or separate means, record significant operations and maintenance events or issues as they arise. Attend periodic STARNET performance review meetings where such information is discussed, along with incident records and STARNET system use statistics automatically gathered by the system. Contribute to the planning of improved procedures and STARNET

system improvements. See below for more detailed procedures related to STARNET performance monitoring and review.

The following are some things you should not do as a STARNET user.

1. Don't use STARNET video feeds to make routine video recordings from cameras not owned by your agency, unless you have written permission from the agency that owns the camera. Some agencies have restrictions on video recording.
2. Don't allow inappropriate words or comments to be included in STARNET event information available to the public. Inappropriate content includes peoples' names and contact information, test or experimental content that does not reflect an actual current event, emotionally charged language, and operational details intended only for other operators and of no use to the public. Any general comment entry in the event tracker can be restricted to just other operators. On the other hand, it is generally best to give as much information to the public as possible.
3. Don't open the STARNET event editor and wait a long time before making an entry and saving it. Things may change during that time and you may be making an entry that is inappropriate given other entries by other operators in the mean time. Always look at the current event record and then open, use, and close the event editor without delay.
4. Don't leave an unattended computer logged in to the STARNET operator's display for any significant time, especially if the computer is accessible to the public or unknown personnel.
5. Don't share your STARNET password with others and don't make it accessible to others.
6. Don't do testing, training, or demonstrations on the live STARNET system if there is any risk of inappropriate entries or actions. Use the test system instead.
7. Don't establish visitors or raw trainees or interested parties with an operator user name and password on the live STARNET system. If the live system must be used, establish one or more temporary user names and passwords for such occasions and use these to log-in for such people.

## 4 Event Information Sharing

A powerful feature of STARNET is its ability to gather and share information pertaining to current and planned events that affect mobility or emergency response. We can't eliminate disruptions to travel, but we can make all agencies' operations and maintenance personnel, and the public, fully aware of what is happening, what actions are being taken by whom, and when the disruption will likely be over.

STARNET operators will become aware of relevant events or additional information pertaining to an already-known event by various means including:

- Text messages generated by STARNET.
- Event icons and related text displays on the STARNET computer display.
- Listening to 511 periodically when away from a computer.

- Operator-to-operator messages displayed on the computer screen via STARNET.
- Conversation, phone calls, text messages, two-way radio voice, or e-mails from other personnel in the same agency or other agencies.

Operators who have event information that did not come from STARNET should consider adding such information to the STARNET real-time events database. Consider the following:

- Is the overall event already recorded in STARNET? If not, create an event.
- Although the event is already recorded in STARNET, do you have additional information not already recorded there? If so, add that information to the event record.
- Do you know that some existing event information in STARNET is inaccurate? If so, correct the information if possible or add a separate comment that provides the correct information. If unsure, contact other operators to check on the details and to determine the most accurate information.
- Do you see that two STARNET events have been created for the same event? If so, merge one with the other. If unsure, contact other operators to check on the details and to determine if they are really the same event or separate. If two separate events are in close proximity or of a similar nature such that others may also suspect duplication, add a comment to each event record that references the other event and explains that it is separate.

In addition to using STARNET to provide your knowledge of an incident to others, also use event information available from STARNET to fine tune your agency's actions related to the event. When your agency is about to take a significant action or has just completed a significant action, tell others about it by adding a comment in the STARNET event record.

Consider all the different types of STARNET users and what types of event-related information will be useful to each type of user. Put yourself in their shoes and ask what information might be useful. Different types of STARNET users include:

- Members of the public driving on roadways or riding transit and using the 511 travel information phone service.
- Members of the public about to start a trip, and using either the 511 phone service or the STARNET web site to decide on the best time, mode, and route for the trip.
- Fleet vehicle supervisors and dispatchers who use the STARNET web site to be aware of events that may affect their vehicles. Fleets may include transit vehicles, trucks, taxis, delivery vans, etc.
- Emergency response dispatchers who use STARNET to be aware of events that may affect the choice of route for emergency response vehicles and to be aware of actions being taken by other agencies in support of an event of which they are already aware.
- Transportation operations personnel in all agencies who may need to monitor the situation or take action.

- Transportation maintenance personnel in all agencies who may need to monitor the situation or take action.
- Information systems personnel in all agencies who may need to monitor the situation or take action – for events involving STARNET system/equipment failures.

Often, it is important for personnel to just know that others already know. This avoids wasted time and effort to inform those already aware and provides reassurance that others are available as needed. So when relevant, consider making a simple entry such as “Agency xyz is aware and monitoring the situation”, or “Agency xyz is aware and responding” followed soon after by an entry describing the response action being taken.

Other operators can see the ID of the operator making each entry, so there is no need to include that in the entry itself. The ID of the operator making an entry is not made available to the public. The date and time each entry is made is available to both other operators and to the public. The authoring operator also has the option of making the entire entry unavailable to the public if appropriate.

In general, it is preferable to provide event-related information as an open comment in STARNET’s event record so it is visible to all, rather than restricting it to operators only or communicating privately with another operator. Just word the entry so that it provides the essential information briefly, clearly, and appropriately. New operators will quickly grow accustomed to this practice. The best approach is to assume everyone needs to know and will read your entry. Open, professional, and timely communication is a key element of STARNET.

[This section could contain examples of well-worded event record entries.]

## **5 Other Data Sharing**

[Add information here once we know the details of what data are to be filtered from the feeds to the public and third party data feed. This section is mainly to just record the current policy/practice with regard to data distribution filters.]

## **6 STARNET Configuration Management**

### ***6.1 Configuration Management Activities and Principles***

Each STARNET agency is responsible for the following key configuration management activities.

- Maintain comprehensive and accurate configuration records, including updating records after making any change.
- Consider potential impacts on other agencies, and consult with them when appropriate, before making any configuration change.
- Inform other agencies of any significant change.

Each agency has its own configuration management tools and procedures, used in managing the configuration of its facilities including the STARNET components that it owns or is responsible for. Generically, configuration management procedures include:

- Creation and maintenance of configuration records such as drawings or geographical information systems showing the location and connectivity of all components, related or separate tables and text describing each component (including field devices and communications links) and its history and current configuration, documentation of current operation and maintenance procedures, documentation of current inter-agency cooperation procedures, etc.
- Change control procedures such as categorization of components and procedures with regard to change control, level of authority needed for change approval for each category, a change control board or committee for at least some categories, and change implementation and notification procedures.

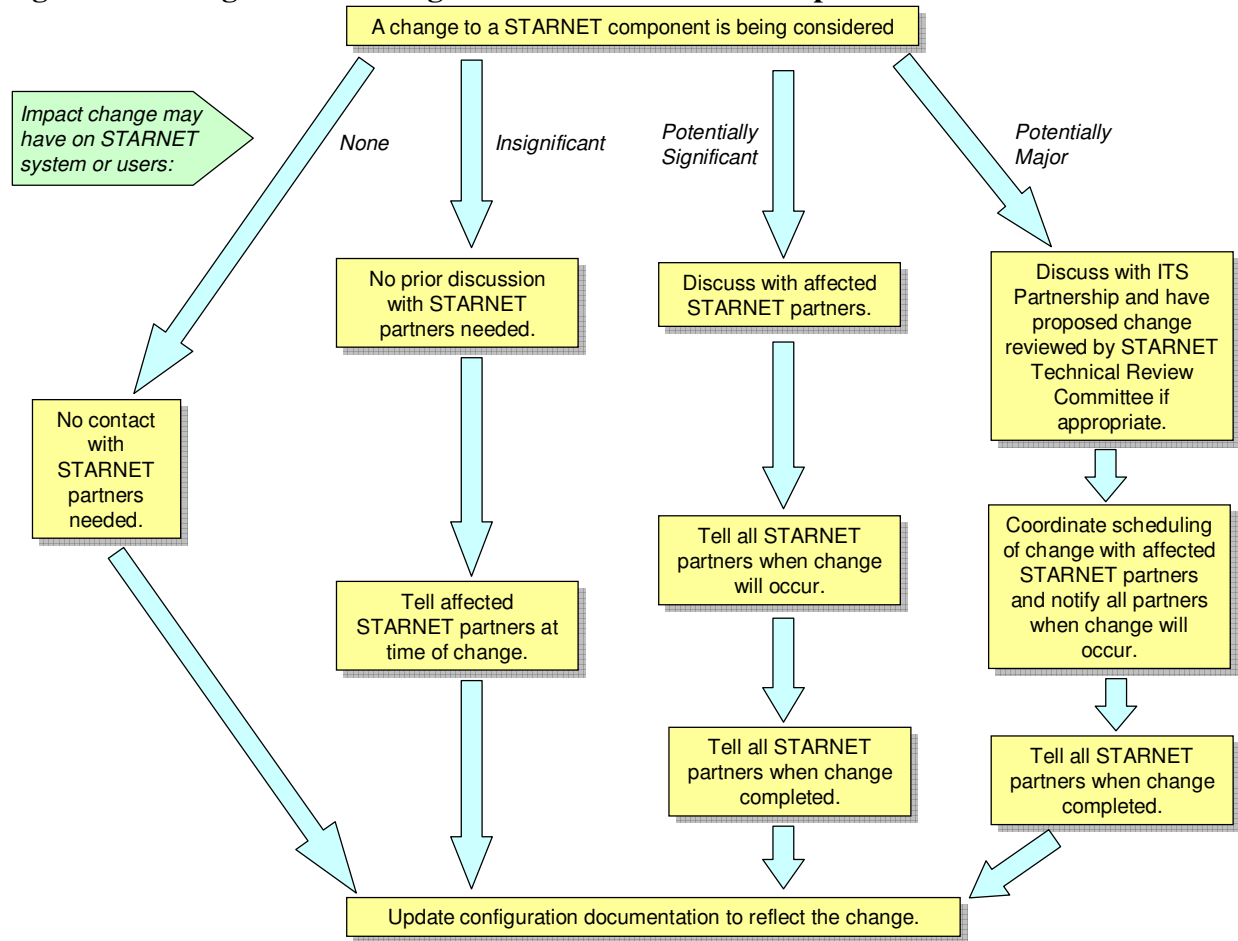
The Sacramento Region ITS Partnership provides a forum for joint review and discussion of changes that may have a regional impact. The Partnership maintains a STARNET Technical Review Committee to which can be referred items requiring more detailed or more technical review than is feasible at meetings of the whole Partnership. After such review, the technical subcommittee makes recommendations to the whole Partnership.

After appropriate consultation and approval, the change should be scheduled with other involved or affected STARNET agencies. All agencies should be notified as to when the change will be made. After the change is successfully completed, all agencies should be notified and configuration documented updated to reflect the change.

The extent to which other agencies need to be consulted and informed depends on the potential impact of the change on the STARNET system or on STARNET users (the public, operators, and maintenance personnel). Figure 1 summarizes the potential steps involved when a change is being considered to any STARNET component.

For a more detailed discussion of configuration management principles, see the document *STARNET Configuration Management Plan*.

**Figure 1 - Configuration Management Activities and Principles**



Since Castle Rock will be hosting and maintaining much of the STARNET computer equipment and software, they should be included in discussion of planned changes and notified of the start and end of change activities.

The following table provides some examples of changes that might occur and the regional impact each may have.

**Table 2 - Example of Potential Changes and Their Impact**

<b>Regional Impact</b>	<b>Example Changes</b>	<b>Inter-Agency Coordination</b>
None	1. Change the color of paint on a traffic signal cabinet.	None

Minor	<ol style="list-style-type: none"> <li>1. Relocate a camera rarely used by other agencies.</li> <li>2. Add more AVL-equipped transit vehicles that will automatically appear on STARNET maps.</li> <li>3. Make small changes to presets on a camera.</li> </ol>	Notify other agencies at the time of change if not before.
Potentially Significant	<ol style="list-style-type: none"> <li>1. Upgrade the operating system on a node system server computer.</li> <li>2. Decommission a fiber optic link used as a back-up path for STARNET communications.</li> <li>3. Decommission a camera commonly used by other agencies.</li> <li>4. Make significant changes to presets on a camera.</li> <li>5. Change procedures involving interaction with other agencies during incidents.</li> </ol>	Discuss with the most affected agencies prior to making the change. Notify all agencies well in advance of making the change. Notify other agencies of the actual changes made after successfully completed.
Potentially Major	<ol style="list-style-type: none"> <li>1. Replace a broadband Internet link used by STARNET with a much slower link that will not support simultaneous video streams.</li> <li>2. Remove a node system from STARNET.</li> <li>3. No longer allow incident data to be exported to STARNET.</li> <li>4. Change the look and feel, or functionality, of the STARNET operators' user interface.</li> <li>5. Change to a new software on a node system.</li> </ol>	Formally notify the Region ITS Partnership of the proposed change and have it placed on the agenda for at least one meeting of the STARNET Technical Advisory Committee. Make a change only after thorough discussion, and attempts at consensus if controversial. Coordinate the changes with other agencies. Notify other agencies of the actual changes made after successfully completed.

## 6.2 Configuration Documentation

Configuration documentation for STARNET components typically includes some form of inventory database with fields such as; component description (including make/model), serial number or other unique identifier, date purchased, current location, current use or purpose served, pointer to another component of which this is a subcomponent, current status (e.g., awaiting installation, installed but not operational, operational, temporarily failed, stored as spare, etc.), date of acquisition, date first put into service, procurement source, procurement method, procurement cost, nature and expiration date of any warranty or maintenance agreement, identification of agency personnel with knowledge of this component, identification of any third party

maintenance service used, description of current configuration (or pointer to other documentation containing same), description of last configuration change (or pointer to other documentation containing same), and pointers to further documentation if any (e.g., drawings showing the spatial or logical integration of this component with others, drawings showing details of the component design or configuration, text documents describing the current configuration, users manual, maintenance manual, etc.).

Such information may be stored in a geographical information system, relational database, spreadsheet or any other suitable form. It is good practice to avoid replication of the same information, such as information common to every instance of a particular type of device or software package.

Most of this information is applicable to both hardware and software. Software documentation should include the parameters and scripts entered or created by users to affect the operation of the software.

Any agencies operation and maintenance procedures that affect STARNET operation and maintenance, beyond those described here, should also be documented and subject to configuration management.

It is important to ensure that the documentation is kept up to date, a date and time of last change is recorded, a summary of the nature of changes is recorded, and that conflicting duplicate versions are avoided.

The following scenarios illustrate why it is important for the region that each agency maintains complete and accurate records of its facilities and procedures.

*Scenario 1* – A router involved in STARNET fails in the off condition and needs to be replaced. Its failure means all STARNET communications with that agency's system have ceased. By referring to configuration documentation, maintenance personnel are able to determine that the device is still under warranty with four-hour on-site support from the manufacturer. The device is replaced that same day. The configuration documentation also enables the new device to be quickly and accurately configured the same as the old one.

*Scenario 2* – Several of the STARNET agencies experience a reliability problem involving the STARNET interface to the local system at each agency. As part of troubleshooting procedures, each agency is asked to report the configuration of its interface including routers, firewalls, switches, and operating system network connections. Such information is readily available from all agencies and a comparison quickly indicates the differences and the cause of the problem.

*Scenario 3* – As a result of the problem discussed in the previous scenario, the agencies jointly decide to change the interface configuration to avoid similar problems in the future. Good records enable each agency to easily determine exactly what changes it needs to make, to make the changes, and to record the changed condition.

*Scenario 4* – During implementation of the interface configuration change described in the prior scenario, an unanticipated side effect emerges and the agencies agree to roll back to the previous configuration, at least until a better solution is determined. The good records kept by each agency, including storage of prior-state information, allow the former condition to be restored accurately and quickly.

SACOG is responsible for maintenance of the STARNET Interface Definition document. This document specifies the data elements, messages, protocol, and other aspects of the common (standard) interface between the STARNET network and each agency's system (called a STARNET node). This is the STARNET side of the interface to each node. The configuration of each node system, the specification of the node side of the STARNET interface, and the configuration of the STARNET interface software for a particular node, are specific to each node and therefore documented by the agency that owns the node system.

[What configuration management documentation and management tools are agencies now using? Should we steer agencies to a common tool here? Should agencies have access to each other's configuration documentation? What about those components maintained by Castle Rock? ]

## **7 STARNET Facilities Maintenance**

While using STARNET, operators should be on the lookout for signs of software, hardware, or communication problems that are affecting STARNET, even if they don't involve components owned by their own agency. When such a problem is noticed, an Operations event should be created using the STARNET event tracker, if not already done by someone else. Also follow up to ensure that personnel at the owning agency are aware of the problem. If it is not obvious which agency or agencies need to respond, contact the STARNET Coordinator at SACOG.

[Since much of the STARNET computer equipment and software will be hosted by a third party, procedures for reporting problems to that party will be inserted here once known. Those procedures will need to be coordinated with the contractual provisions in the hosting agreement. ]

Agency personnel should investigate and correct problems with STARNET components as soon as practical. This is especially important for problems that could have a major impact on users including the public who use the 511 phone service or STARNET web page. Agency personnel should look at the public web site and listen to the 511 phone service as needed to assess the impact of a current problem and to determine the urgency of corrective actions.

Personnel in all STARNET agencies can track the status of a current system problem by referring to the STARNET operations event for that issue. Personnel with information

relevant to the issue should input such information using the STARNET event editor, just as they do for accidents and other events on the transportation network.

Any changes made to STARNET components during maintenance activities should be reflected in updates to system configuration documentation (see procedures above related to configuration management). Such updates should be made immediately after the maintenance work is completed.

## 8 Performance Monitoring

[Procedures related to gathering, analyzing, and reviewing data on STARNET usage and on interagency coordination. Need to coordinate with what CARS is capable of.]

The following are potential measures of STARNET performance.

- Quantity of data exchanged per month.
- Average number of operators logged on for each time period of each day type.
- Number of operator actions per month.
- Number of camera control actions.
- Number of devices of each type reporting data to STARNET or available to STARNET users.
- Completeness of SACOG's regional transportation database that uses STARNET to gather data.
- Percentage of up-time for each service.
- Percentage of time that each agency node is able to communicate with STARNET servers.
- The number and nature of Operations events that record STARNET system problems and maintenance activities.
- Number of incidents per month in which STARNET played a role - divide into day types and time-of-day (e.g., peak periods), and duration/type of incident.
- Description of actual incidents and the use of STARNET during incident response, using activity logs kept by STARNET operators.
- Anecdotal reports from STARNET operators, including reports of significant travel incidents that failed to be reported via STARNET.
- Results of a formal survey of operators as to their experience with, and opinion of, STARNET.
- Number of agencies participating.
- Number of multi-agency events.
- Number of 511 phone users.
- Number of STARNET web page hits.
- Results of a survey of the public as to their use of and satisfaction with 511 and the STARNET web site.
- Expenditures for STARNET hosting, Internet access, maintenance services or replacement parts, etc.

At each meeting of the Sacramento Regional ITS Partnership, at least some of the above items are reviewed. The STARNET Coordinator at SACOG gathers data prior to the meeting. Every six months, the Partnership conducts a more complete review of STARNET performance and any changes needed to the system to improve performance.

## **9 STARNET Contacts and Information Sources**

[A list of personnel with contact information, plus web sites. Consider replacing this section with a password-protected wiki or similar editable web page where agencies and personnel can update their own contact information at any time. Otherwise it will always be out of date. ]