

ATC Controller Standard Development Consultant Contract Report

1. Summary Status

- Contract was awarded to Siemens Energy & Automation, Gardner Transportation Systems Business Unit (GTS) based on a proposal submitted on June 7, 2002.
 - Project Manager: Craig Gardner
 - Dave Miller (Siemens/Eagle) (Deputy Project Manager)
 - Doug Tarico (Siemens/GTS) (Software)
 - Ron Johnson (Safetran)
 - Floyd Workmon (Consultant – formerly CALTRANS)
 - James Kinnard (Independent Consultant)
 - Janie Page (Siemens/GTS) Coordination and responsibility for project.
- Work is underway – Kick-off meeting was held 11/20
- Schedule of deliverables shown below
- First deliverable is 12/20 – architecture and requirements.

ATC Working group structure:

Working group Chairs

Craig Gardner – Private Sector
Andy Mao – Public Sector

Sub-working group for contractor review:

Paul Olson*	Al Bonificio
Gary Duncan*	Martha (Herasmo)
John Renfro	Andy Mao*
John Thai	Sean Skehan
Doug Acker	Richard Reeves

* indicates attendee at kick-off meeting

2. Activities

A kick-off meeting was held in Concord, CA on 11/20 (following the NEMA sponsored DC cabinet workshop). Attendees included the following:

James Cheeks
jcheeks@ite.org
Craig Gardner
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James Kinnard
jkinnard@gardnersys.com
Dave Miller
dave.miller@eaglelcs.com
Robert Rausch
Robert.rausch@transcore.com;
Floyd Workmon
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Gary Duncan
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Ron Johnson
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Andy Mao
amao@eng.hctx.net
Paul Olson
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Doug Tarico
dtarico@gardnersys.com
Janie Page
jpage@gardnersys.com

The agenda of the kickoff meeting included a review of the activities to date, a discussion of the requirements as documented in previous ATC working group meeting minutes and documents, work assignments, project schedule, deliverables, and coordination with other standards development efforts.

The contractor has produced an outline for the document in line with previous committee activities.

At the kickoff, Janie Page was introduced as the one responsible for coordinating all of the activities of the project and compiling the final document.

There will be a designated author for each section of the document. However, all team members will be expected to review each section as it becomes available. See the schedule and authors for the various sections below.

NOTE: first major review is scheduled for 12/20 when the architecture and requirements documents are to be made available for sub-working group for review and discussion.

Web Site status

The contractor is developing a document exchange/tracking web site. Access will be limited by login and password; the web site will contain all working documents for the project. The contractor's configuration management plan was incomplete at the time of the kick-off meeting. They are to complete the plan prior to deployment of the web site document exchange. Web site is up, but remains incomplete; it should be completed in about 2 weeks.

3. Schedule

Work Effort/task	Preliminary review¹	Final document²	Responsible Engineer	Support
Engine Board	12/17	1/14	Kinnard	Gardner,

¹ Internal project team review

² For review by the working group and sub-working group.

Work Effort/task	Preliminary review ¹	Final document ²	Responsible Engineer	Support
				Miller, Johnson
Architecture & Requirements		12/20	Gardner	Miller
Modem	1/8	2/5	Tomasko	Gardner, Miller, Tarico, Clark
Introduction	1/13	2/10	Workmon	Page
Physical and user interface	1/15	2/12	Johnson, Hudgins	
I/O	1/24	2/21	Tarico, Tomasko	Gardner, Miller, Clark
First Draft Document	3/7			
First major review	1/30			
Proposed Controller Working Group Meeting	3/24-3/27			
Second Draft	6/6	6/26		
Third Draft User Comment Draft	7/5	7/25		
Standards Review	7/28-9/15			
Revised Draft	10/6	10/13		
Final Standard	11/3	11/10		

Suggested Working group meetings and reviews

Based on the current schedule the following meeting dates are suggested for future meetings:

- Controller W/G meeting: **3/24-27/03** (agenda is preliminary review of the proposed draft standard)
- Controller W/G meeting: **7/8-7/11/03** (agenda is final resolution and preparation for user comment draft submission to SDOs)
- Controller E/G Meeting: **10/17-20/03** (agenda is final resolution of all user comments and submission of final standard)

4. Observations/Issues

The contractor's first assignment was to identify the specific requirements that are to be addressed by the ATC development effort. In reviewing the meeting minutes [Vegas June 1999, Houston March 2000, and the Advanced Transportation Controller Standards Overview document (Joint committee and Paul Olson)] it became clear that

many of the 'requirements' as stated were very ambiguous and incomplete. It is important that the whole committee review the requirements document being developed (Due concurrently with the architecture 12/20).

There was also some discussion regarding the concept of operations/user needs documentation for the ATC. To date, we have only the overview document and a general consensus that it is intended to replace the 170 – and allow flexibility with regard to the hardware platform. However, when we discuss such issues as the USB port, a con-ops would better identify the purpose and need for this device. The same issue was discussed with regard to the number and configuration of the serial ports. Input for the committee is critical at this point. Everyone believes they understand what they want – but it has not been reduced to a concise series of statements. This should be addressed in the initial review documents.

USB

There was considerable discussion regarding Houston decision to flush the USB interface for the ATC. It was agreed that the contractor (Kinnard) would review available components, costs, and technology and make a recommendation. If there are members of the steering committee who feel strongly, now is the time to voice an opinion – previously the committee rejected this concept, but recent developments in the use of USB memory devices suggests that they could replace the need for a laptop computer for service technicians.

Concept: with a large memory USB device, the entire database for a city's controllers could be stored and then retrieved by the controller based on the controller cabinet address. Loading becomes foolproof. This eliminates the need for a lap-top computer (or similar device) to load parameters and firmware in the field. It could also be used to allow the controller to 'dump' logs, collected data etc. Such devices are far more rugged and less expensive than lap-tops or similar devices.

Interchangeability

There is still some discussion regarding the level of interchangeability of the elements of the ATC. CALTRANS currently fully specifies all internal components. NEMA takes more of a form/fit/functional approach leaving construction and design to the vendor. It was generally agreed that this issues needs to be attacked in the requirements document and that the primary concern was the protection of software investment.

Data Key

There continues to be a discussion regarding the use of the data key. It was generally agreed that the data key will be part of the first ATC standard.

5. Project budget

This is being tracked solely by James Cheeks