Project Implementation Plan

for the

Department of Commerce

CSTARS Implementation

At NOAA Field Offices

Submitted by

CACI

Systems ▪ Software ▪ Simulation

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1 Project Overview

As the CSTARS Enterprise Pilot approaches a successful conclusion, the Department of Commerce has decided to proceed with the planned implementations of CSTARS at the NOAA Bureau Field Offices. In accordance with the CSTARS Project charter, CSTARS implementation at these field offices will not interfere with CFS/CAMS implementation activities at NOAA since these offices are non-CFS sites. Each of these offices will be provided with separate CSTARS databases at OCS. This plan is not applicable to the NOAA delegated procurement offices implementation. When required, the NOAA delegated procurement offices may be implemented under separate taskings, as directed by the Enterprise Team. As part of this project, 128 users within the NOAA Field Offices are scheduled for CSTARS implementation in the following sequential order:

EASC	(Norfolk, VA)	- 12 CSTARS users
NDBC	(Pascagoula, MS)	- 2 to 4 CSTARS users
MASC	(Boulder, CO)	- 14 CSTARS users
WASC	(Seattle, WA)	- 15 CSTARS users
AMD	(Silver Spring, MD)	- 52 CSTARS users
SAO	(Silver Spring, MD)	- 17 CSTARS users
CASC	(Kansas City, MO)	- 14 CSTARS users

Typical CSTARS site implementations span 2-3 months. However, this implementation plan combines several of the implementation activities and tasks, such as Business Process Mapping and training, for the different ASC Offices. Additionally, since all NOAA application environments will be hosted at OSC, there are also time saving options built into the overall schedule. Section 1.2 includes a high-level presentation of the NOAA CSTARS implementation tasks against the currently projected schedule.

1.1 OBJECTIVES

Comprizon.Buy is an integrated, automated procurement system which provides a critical capability to the Department of Commerce for meeting its CSTARS procurement management needs. The specific objectives for CSTARS implementation throughout the Department of Commerce, and at the NOAA Field Offices, are to:

- Ensure reliable and accurate bureau & department-wide procurement-related financial information (support the Procurement Balanced Scorecard);
- Make the most efficient use of information technology investments;
- Improve Purchasing & Contracts business processes;
- Support an integrated policy, planning, and budgeting process;
- Support a solid risk management program;
- Increase customer service through improved status of actions and reduced administrative lead times;

- Lower the cost of procurement activities; and
- Comply with Electronic Commerce (EC) directives.

To accomplish these objectives, this project is designed to establish separate CSTARS application environments for each NOAA Field office at the OCS enterprise facility in Springfield, VA, and ensure NOAA Field offices have remote access to the CSTARS automated procurement system, with sufficient capacity. Current NOAA/DoC WAN infrastructures will be utilized to support this access. If insufficient capacity exists to support acceptable performance of the CSTARS production environment, then the Government is responsible for increasing bandwidth capabilities or providing an alternative means of access from the NOAA field offices to the OCS enterprise facility.

1.2 CSTARS IMPLEMENTATION APPROACH AND ASSUMPTIONS

The CSTARS implementation approach for NOAA is based on the CSTARS model and lessons learned developed during NIST and OS+ Pilot implementation. The typical approach to be used for each ASC would include the steps listed sequentially in the table below. CSTARS implementation activities at the ASC's is staggered, but most tasks from ASC to ASC overlap, therefore the timeframes below apply to all seven ASC offices. Each of these implementation steps is discussed in greater detail in Section 2, as noted in the "Xref" column of the table below. The baseline assumption for the projected schedule presented in this table, is that task authorization and implementation activities will commence in April 2001.

SEQ. #	STEP NAME	GENERAL DESCRIPTION	PROJECTED SCHEDULE	PROJECT PLAN XREF
1	CSTARS Architecture Validation	Verify adequate sizing and capacity for hosting and accessing CSTARS Application environment	APRIL 2001	2.1
2	Desktop/User Audit	Collect CSTARS user profile data and verify desktop configurations for adequate configuration and access to CSTARS application	APRIL/MAY 2001	2.2
3	Conference Room Design Configuration	Establish physical working environment for Hands-on CSTARS activities in support of Business Process Mapping	APRIL 2001	2.3
4	Business Process Mapping	Identify and map specific bureau/agency business process, practices, and rules to CSTARS application context	APRIL/MAY 2001	2.4

SEQ. #	STEP NAME	GENERAL DESCRIPTION	PROJECTED SCHEDULE	PROJECT PLAN XREF
5	Data Collection, Conversion, and Migration	Identify, document and collect CSTARS data elements, formats and default values for initializing production CSTARS database environment	MAY/JUNE 2001	2.5
6	CSTARS Installation/Configuration	Install and configure CSTARS application in production configuration and access environment	MAY 2001	2.6
7	Database Initialization	Populate the CSTARS production database with previously collected data formats and default values, including user profile data and logins	MAY/JUNE 2001	2.7
8	Legacy Contract & Vendor Data Migration	Identify and select existing contracts and vendor data to be propagated into the CSTARS database; establish rules and guidelines for entering this data into the CSTARS application	JUNE – SEPT 2001	2.8
9	Training Planning	Develop schedule, class lists, and tailored curricula for CSTARS end user training	MAY 2001	2.9
10	Validation & Certification for Full Production	Verify functional status of application environment, and certify it as ready for production use	AUG/SEP 2001	2.10
11	CSTARS Training & Production Support	Coordinated training for all CSTARS end users followed immediately with on-site, proactive, desk-side trainer support	OCT 2001 – JAN 2002	2.11

Each field office will be configured with its own CSTARS database environment which will be hosted at the OCS facility in Springfield, VA. A sizing analysis/validation must be performed at the Springfield OCS facility to determine if there are an adequate number of CSTARS application servers available to support the 7 NOAA office production databases, and the 128 projected CSTARS users. This will be addressed during the Architecture Validation task discussed in Section 2.1

The following major assumptions apply to the NOAA Field Office CSTARS implementation:

- The NOAA CSTARS production and training application environment will be hosted at the OCS Enterprise Facility in Springfield, VA.
- Each Field office will be configured with it's own CSTARS production database environment at OCS.
- A Pre-production staging/training database may be hosted locally at each ASC office, which would subsequently be migrated to the OCS Enterprise facility just prior to CSTARS training.
- NOAA will utilize existing agency-wide Citrix Metaframe licenses to support CSTARS application access from the Field offices to the OCS Enterprise facility in Springfield, VA. OCS must confirm availability of these and the necessary Windows Terminal Server user licenses to support the NOAA CSTARS community.
- The CSTARS Data Warehouse environment, when implemented will utilize an Oracle 8 database environment. The Data Warehouse will provide "extended" CSTARS capabilities for management level reporting and analysis beyond the standard or "core" reporting capabilities available in the current version of Comprizon.Buy. Since the CSTARS Data Warehouse will be Oracle-based, a wide range or report generation and data analysis application tools may be selected and integrated into the data warehouse environment.
- Prior to the implementation of the CSTARS Data Warehouse, non-standard bureau-level management reports can be generated through Comprizon.Buy Ad Hoc reporting. More complex Ad Hoc reporting capabilities may require separate taskings for CACI to develop reusable report programs/ad hocs, that could be shared among the various bureaus and operating units.

Additional implementation assumptions are discussed in the following subsections.

1.2.1 SYSTEM ADMINISTRATION SUPPORT

Each NOAA Field Office will be responsible for providing a CSTARS System Administrator to address both technical and functional support issues. The designated Administrators will be trained by CACI staff to perform the day-to-day support functions. The additional responsibilities of the CSTARS System Administrator should not require full-time assignment status, due to the relatively small user communities at each site. The one possible exception to this may be AMD, where 52 CSTARS users will be utilizing the system. For further information on the roles and responsibilities of the CSTARS System Administrators, see Appendix D, Frequently Asked Questions, question #3.

1.2.2 CSTARS FUNDING

Currently, OAM is providing funding, through the Working Capitol Fund (WCF) to cover the costs of hosting the NOAA production CSTARS database(s) at the OCS Springfield facility throughout the application's lifecycle. However, NOAA will be responsible for the CSTARS transaction costs imposed by OCS. The table below

provides a distribution of Cost burdens, to be considered but not limited to, between OAM and NOAA.

NOAA has also advised OAM that they will assume responsibility for the administrative level of effort required to migrate legacy contract data into the CSTARS application environment. If required, or desired, supplemental support from CACI may be separately tasked by NOAA for legacy contract migration.

	PROJECTED COST BURDEN		
COST ITEMS	**ESTIMATED COST**	***OAM***	***NOAA***
Contractor Labor & Travel for CSTARS Implementation at NOAA Field Offices	**$806,000**	✓	
CSTARS User Licenses & Maintenance (includes software problem correction updates, telephonic Help Desk - 8x5 support, and acquisition regulation update	**$306,000/YR**	✓	
CSTARS Database Hosting @ OCS	**$220,000/YR**	✓	
CSTARS Transaction Fees @ OCS	**$ TBD**		✓
MS Office Licenses for CSTARS usage[1], if required. (Note: CSTARS also works with Corel WordPerfect for support documents)	**$58,000**		✓
User Desktop and/or Network Upgrades (if required)	**$ TBD**		✓
NOAA Travel & Lodging for CSTARS Mapping Sessions	**$20,000**	✓	
CSTARS refresher training and onsite support by contractor (if required)	**$25,000/YR**		✓

Table 1.2.2-1 - Projected Cost Allocations

[1] **Note:** While CSTARS can accommodate WordPerfect, it should be noted that this limits the users capabilities of printing to WYSIWYG only. It should be noted that it may not be possible to save and post a CSTARS document to FEDBIZOPS without MS Word.

1.2.3 CSTARS LICENSES

The Department of Commerce currently holds 1400 CSTARS external user (requisitioner, reviewer/approver) and 500 purchase/contract user licenses. NIST has been allocated 150 external user licenses and 70 purchase/contract user licenses; at OS+ no external user licenses have been allocated and 25 purchase/contract user licenses have been assigned. Hence, 1250 external CSTARS user licenses and 405 purchase/contract user licenses are still available; which is more than enough to support the 128 NOAA Field Office CSTARS users.

A sizing analysis/validation must be performed at the Springfield OCS facility to determine if there are an adequate number of CSTARS application servers to support the 7 NOAA office production databases, and the transaction load to be generated by the 128 projected CSTARS users.

1.2.4 CITRIX METAFRAME LICENSES/CITRIX SERVERS

For the purposes of estimating the number of required Citrix Metaframe and Windows Terminal Server user licenses required to support the NOAA CSTARS community, the following guidelines are provided:

- Generally, each contract /purchasing specialist requires a dedicated Metaframe and Terminal Server license, since it is expected that they will be full-time CSTARS users.

- Other users, such as supervisors, review and approval, or customer requisitioners are designated as part-time users, and can generally share concurrent user licenses in a user to license ratio of approximately 1:3 or 1:4.

Since all 128 anticipated NOAA Field Office users are expected to be contracting or purchasing specialists, 128 dedicated Metaframe and Terminal Server licenses are recommended. However, this depends on a verification of the CSTARS roles to be assigned to each user and will be verified as part of the Desktop/User Audit task.

Server availability and capacity for these Metaframe/Terminal Server users at the OCS facility must be verified with the Springfield technical staff.

1.3 CSTARS LESSONS LEARNED

During the implementation of CSTARS for NIST and OS+, there were several lesson learned checkpoints that were used to assess the success, appropriateness, and effectiveness of implementation tasks and activities. One of the purposes for collecting and documenting the "Lessons Learned" was to utilize them in the planning activities for future bureau implementations, such as the NOAA Field Offices. **Appendix E** contains a summary of the Lessons Learned form CSTARS implementation at OS+; **Appendix F** contains a list of Lessons Learned from the implementation of CSTARS at NIST. The

following subsections address specific implementation approaches that are relevant to the NOAA CSTARS implementation project.

1.3.1 CPDS/FPDS REPORT PROCESSING

Comprizon.Buy meets government FPDS reporting capabilities by providing both the capture and transmittal mechanisms and edit specifications for all required data elements. However, the Department of Commerce has supplemental data elements above and beyond those of FPDS, which are required to meet unique departmental business objectives. These additional data elements are specific to the Department of Commerce but are not available as part of the standard Comprizon.Buy-generated FPDS report data.

As a result of these unique CPDS reporting requirements, the standard Comprizon.Buy FPDS process of exporting FPDS data from the application database into ASCII flat files and transmitting them via FTP (or email) to FPDS, will not suffice in meeting the DoC's internal reporting requirements. Unless OAM issues a new mandate to eliminate the need for additional CPDS data elements or an enhancement is requested for CSTARS reporting capabilities, this data will not be exported from CSTARS, but will require manual re-entry of FPDS/CPDS into CSPS.

1.3.2 CSPS, SPS AND CSTARS

Since CSPS may not be phased out in its entirety, reporting data may reside in both CSPS and CSTARS throughout FY01 and FY02. It is understood that some NOAA ASC's (e.g. EASC) use SPS to track purchase card transactions. NOAA at Silver Spring should work with the CSTARS Program Office to dissolve SPS when appropriate, since NOAA is the primary user of SPS.

1.3.3 CUSTOMER REQUISITIONS

It is likely that CSPS may be used as the Customer Requisitioning module in lieu of the CSTARS Customer subsystem. This decision has not been finalized by the Enterprise Team, and may be delegated to the individual bureaus or agencies. As a result, the CSTARS Customer Requisition subsystem will only be presented as an alternative means of entering requisition data by contracting/purchasing specialists, and not as the primary means of entering user requisitions into the CSTARS system. A final decision will be made prior to rollout of extended/enhanced CSTARS capabilities which would include web requisitioning. The initial implementation at NOAA will not include Customer requisitioning capabilities if an alternate means of generating requisitions, such as CSPS, is prescribed.

2 NOAA/CSTARS Implementation Overview

CSTARS implementation project for the NOAA field offices is comprised of the following major implementation tasks:

- CSTARS Architecture Validation

- Desktop/User Audit
- Conference Room Design Configuration
- Business Process Mapping
- Data Collection, Conversion, and Migration
- CSTARS Installation/Configuration
- Database Initialization
- Legacy Contract & Vendor Data Migration
- Training Planning
- Validation & Certification for Full Production Operations
- CSTARS Training & Production Support

Each task in discussed in detail in the following subsections.

2.1 CSTARS ARCHITECTURE VALIDATION

The purpose of this task is to verify adequate sizing and access capabilities at the OCS facility in Enterprise Springfield Data Center to support the targeted NOAA user community. Individual office site connectivity issues will also be examined to ensure adequate capacity and performance issues (e.g., bandwidth, concurrent user sessions, etc.) are addressed. The "CSTARS Architectural Guidelines for Servers" deliverable provides minimum sizing information for CSTARS application servers. A copy of this guideline document is provided in Appendix A.

2.2 DESKTOP/USER AUDIT

The Desktop and User audit task is required to verify minimum desktop configurations for named CSTARS users to ensure that each user has network connectivity and access to the CSTARS Enterprise environment at OCS in Springfield, VA. Additionally, user profile data will be collected for CSTARS database initialization and security purposes. Minimum CSTARS desktop configuration guidelines are documented in the "CSTARS Architecture Guidelines for Workstations" deliverable. A copy of this guideline document is provided in Appendix B.

The master list of NOAA CSTARS users will be generated to identify the user's CSTARS roles and the type of access required. User information will be provided to OCS staff to establish network login access to the CSTARS application environment. This information will also be used to develop an end user training schedule and establish security permissions in CSTARS. A sample user profile checklist, used to collect CSTARS user information, is provided in Appendix C.

Thin Client access will be utilized by all CSTARS users between their field office locations and the CSTARS application environment to be hosted in the Enterprise facility at Springfield, VA. CSTARS Thin Client user desktops will require secure web-based CITRIX Metaframe access to the CSTARS application environment CSTARS user desktops will require Web-based access to CSTARS via a private WAN connection to the Springfield facility using either a Netscape Navigator or Microsoft Internet Explorer Web

browser – version 4.x or higher. As long as these two requirements are met, no additional reconfigurations or upgrades should be required.

2.3 CONFERENCE ROOM DESIGN CONFIGURATION

The purpose of this task is to configure and install a working model of the CSTARS application in a conference room environment which will support the NOAA business process mapping activities. This configuration must support a minimum of 15 users since representative from each of the NOAA field offices are expected to participate in the mapping sessions. Since the mapping session activities are functional in nature, the physical architecture and configuration of the conference room CSTARS environment does not need to conform to the target enterprise environment. The conference room mapping sessions will focus on the functions within the CSTARS application, and so there are several configuration options available:

- Install and connect the Conference Room Design desktops to a test CSTARS database environment at OCS in Springfield, VA

- Install a stand-alone CSTARS Conference Room Design configuration to be used for the business mapping and implementation planning activities only.

To facilitate the requirements of the implementation schedule and simplify the installation process, a stand-alone configuration is recommended to support the Business Process Mapping sessions.

2.4 BUSINESS PROCESS MAPPING

As with NIST and OS+, existing NOAA business practices and operating procedures will change with the implementation of CSTARS. As part of the CSTARS Pilot activities at NIST and OS+, DoC Bureau representatives were invited to participate in Business process mapping activities conducted at the NIST CSTARS Conference Room Design facility in Gaithersburg, MD. As a result of mapping activities, an enterprise CSTARS User Guide was generated and published.

However, since each bureau also requires the flexibility to identify their own unique or bureau-specific business practices, a NIST Addendum to the CSTARS Enterprise User Guide was also produced. A similar abbreviated Business Process Mapping session was conducted for OS+ users to produce an OS+ Addendum to the CSTARS Enterprise User Guide. Each bureau Addendum was developed in order to address the different business processing environment respectively. However, during the Pilot evaluation, it has been learned that two user manuals may be counter to end user efficiency; as users are typically required to switch back and forth between the two user guide documents to determine the correct procedure for their particular business environment. As a result, an Enterprise Team issue has been raised to determine if it is feasible to generate and maintain a single Master Enterprise guide and separate bureau guides which would be produced from a copy of the Enterprise guide with embedded bureau-specific business

processing rules. This initiative will be presented at the next Enterprise Team meeting, and must be reviewed and approved by the Enterprise Team, before it can be adopted at NOAA; and retro-fitted to both OS and NIST.

An intense NOAA business Process Mapping session will be conducted for NOAA in the Washington, D.C. area with representatives from each of the NOAA field offices. The end-product of the NOAA Business Process Mapping session are the NOAA-specific business rules that will be incorporated into a NOAA User Guide Addendum. These business rules will also be used as input to the customization of CSTARS end user training curricula for the NOAA user community. Examples of the bureau-specific Addendums to the Enterprise User Guide developed for OS, are accessible from the DoC OAM/Acquisition Systems' (AcqSys) website at http://oamweb.osec.doc.gov/.

The purpose of providing a hands-on CRD environment is not intended to provided extensive operational training of the CSTARS application, but rather to provide a hands-on capability for participants to review and reinforce the materials being presented/demonstrated by the session leader during the business process analysis.

Prior to the NOAA Mapping Sessions, each participant will be required to review the Enterprise Guide to familiarize themselves with the CSTARS operating environment. This user group will also be provided with a detailed list of "touch-points" to identify operational areas where NOAA-specific business rules may be identified and applied. A detailed and rigid schedule for the mapping session will also be provided to these users in advance of the BPR activity.

For the NOAA implementation, the goals of the business process mapping activities will be to:

- Review the Enterprise User Guide and O/S+ or NIST Addendums,
- Identify NOAA-specific business process rules and practices, and
- Capture and document these bureau-specific business rules for subsequent incorporation into a NOAA User Guide/Addenda document set.

The NOAA User Guide Addendums will be produced and distributed for review and approval a few weeks after the mapping sessions have been concluded. These documented business rules will also be used as informational guides to configure and initialize the NOAA CSTARS training and production database environments. The business areas that will be reviewed during the mapping sessions include:

- Requisitions and Purchase Requests;
- Review and Approval;
- Procurement Plans;
- Vendor Management;
- CBD;
- Solicitations, Awards, and Modifications;

- Reporting Requirements;
- Workload Management; and
- Contract Administration.

2.5 DATA COLLECTION, CONVERSION, AND MIGRATION

The purpose of this task is to identify and document the NOAA data elements, data formats, and default values required for CSTARS database initialization. A list of the data elements and their descriptions is provided in the "Data Analysis Report" deliverable.

2.6 CSTARS INSTALLATION/CONFIGURATION

This task encompasses the installation and configuration of the CSTARS/Comprizon.Buy application environments at the Springfield Enterprise data center. Current plans call for independent CSTARS databases for each NOAA Field office.

2.7 DATABASE INITIALIZATION

The CSTARS database initialization requires the loading of each site's default values, data/numbering formats, ad general data which includes user profile data, addresses, accounting codes, city/state codes, menu securities, warrant levels, etc. A detailed list of the data elements, formats and default values required for database initalization will be provided to NOAA in the form of a CSTARS Data Definition Report. The focus of the database initialization task is to ensure that all data elements conform to the structured CSTARS formats and standards, and that all necessary data has been populated into the CSTARS database in preparation for production operations.

2.8 LEGACY CONTRACT & VENDOR DATA MIGRATION

The legacy contract data will be keyed into CSTARS using the "existing contract" functionality of Comprizon.Buy. CACI will provide NOAA with assistance in identifying and selecting appropriate legacy contracts for migration into CSTARS, and will jointly develop contract migration guidelines for the various contract types. CACI will also provide direct programming support to develop ad hoc program routines required to correct any legacy records not accurately loaded to CSTARS. NOAA staff will be responsible for keying existing contract detail into CSTARS. Each NOAA office will also be responsible for propagating vendor data into CSTARS, based on guidelines developed jointly between CACI and NOAA. If required, or desired, supplemental support from CACI may be separately tasked by NOAA for legacy contract migration.

2.9 TRAINING PLAN

The scheduling of training for divisions and users throughout the NOAA field offices will be finalized from the Master list of NOAA CSTARS users. This schedule will account

for the number of CSTARS users within each division, their roles, the type of CSTARS access required and the type(s) of training courses required for each user. The training plan will include the finalized end user training schedule and the curriculum for each specific class.

2.10 CSTARS TRAINING & PRODUCTION SUPPORT

During Training, the users will be taught how to use CSTARS to perform their procurement activities. The training curricula and training materials will emphasize the NOAA business rules and processes resulting from the Business Process Mapping sessions and captured in the NOAA User Guide Addendums. Production user-ids and passwords will be used for logging into the CSTARS training environment.

Following CSTARS Training, each group will be provided with production support in the form of a Desk-side Trainer or "Tutor" for a period of 2-4 weeks. The Desk-side tutor will be available all CSTARS users that require additional guidance as they begin to process their first production CSTARS transaction. The trainers and desk-side tutors will be well versed in both the CSTARS Enterprise and NOAA-specific business process rules and procedures to maximize their effectiveness and reinforce users adoption of te CSTARS application environment.

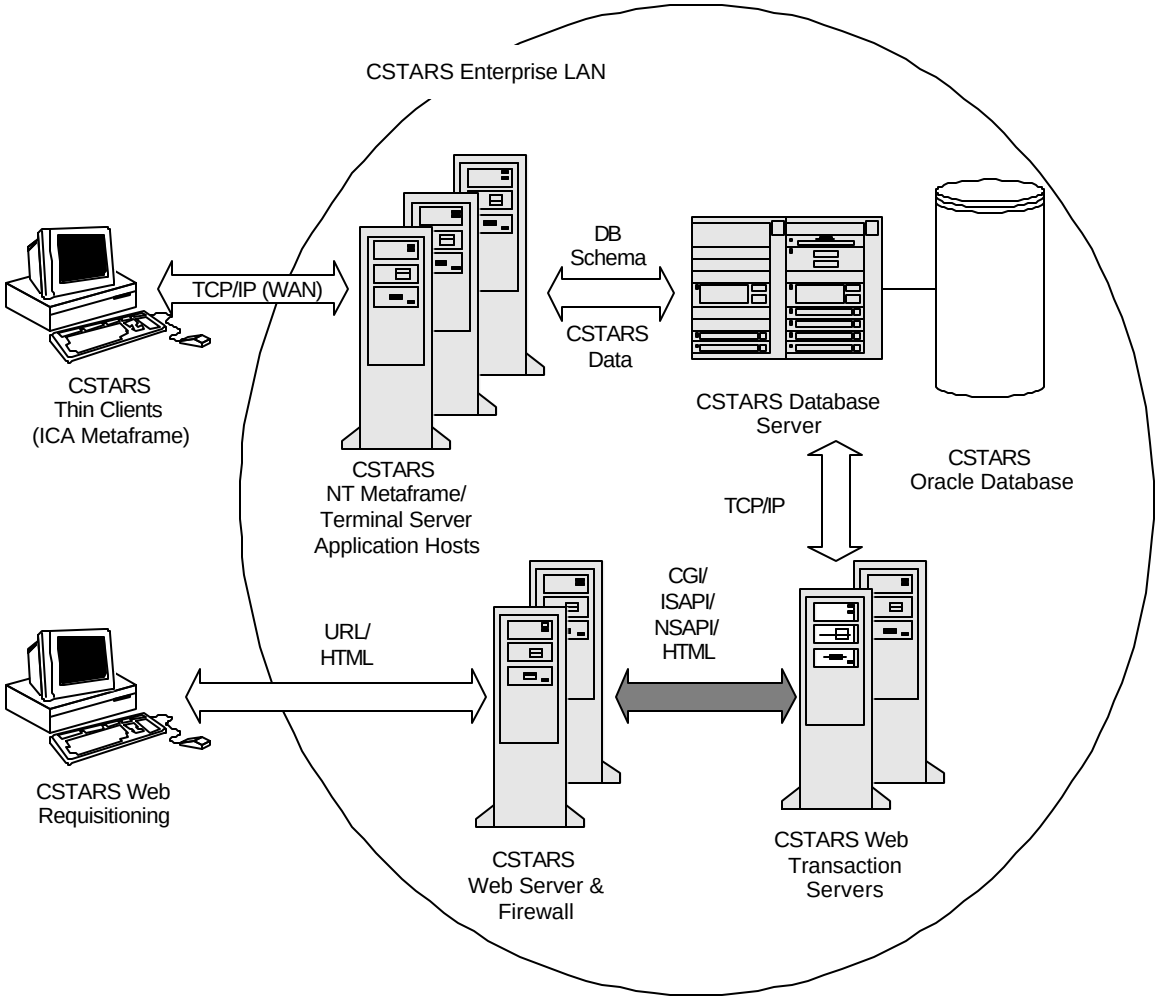
The desk-side tutor will also reinforce the available CSTARS help facilities and tools. During this phase of production support, the CACI representative will provide and coordinate all Level I technical and functional support.

Post-implementation user issues are to be directed to the CACI SACONS / Comprizon Help Desk. Calls filed by DoC users are logged into the Help Desk database and are assigned a control number. Issues that are not immediately solved by the Help Desk are posted to the www.sacons.com web site, where their status and resolution may be viewed and tracked

2.11 VALIDATION & CERTIFICATION FOR FULL PRODUCTION OPERATIONS

Prior to production operations at NOAA, the Government will perform a functional system validation to certify the CSTARS system as ready for production use.

3 CSTARS Technical Architecture



The CSTARS architecture is comprised of three basic segments: the CSTARS Server Platforms, the CSTARS Network Infrastructure, and the CSTARS User Workstations. The initial implementation of CSTARS will not include Web-based end users. Although each NOAA Field Office with have its own CSTARS database, dedicated Citrix/Terminal Servers are not necessarily required. Load balancing capabilities and configurations may be utilized to share NOAA computing resources at OCS.

The server platforms will be physically located at the Springfield Data Center and Metaframe access will be across a the DoC WAN. The full CSTARS Network Configuration for an enterprise implementation includes the following network segments:

- Individual Bureau Public Network
- Individual Bureau Protected LAN

- CSTARS Protected LAN
- World Wide Web/Internet
- DoC Bell Atlantic Fiber Network Services (FNS) WAN

The individual Bureau Public Network will provide a gateway to the CSTARS Protected LAN for all Bureau Thin Client (CSTARS/Metaframe) users; from both internal Bureau users and the Public Internet. The CSTARS LAN will contain the CSTARS Firewall, the Thin Client CSTARS Application Servers the CSTARS Web Server, CSTARS Web Application Server, and the CSTARS Database Server. The Web platforms would only be required to support Web Requisitioners.

All NOAA Thin Client (CSTARS/Metaframe) users will use their respective LANs to connect to the CSTARS environment. The Bell Atlantic FNS WAN will provide Thin Client users with access from their respective LANs to the CSTARS LAN.

Appendix A - CSTARS Architectural Guidelines for Servers

CSTARS ARCHITECTURAL GUIDELINES

FOR

COMPRIZON.BUY SERVER CONFIGURATION

The following Architectural Guidelines are provided by CACI to DoC/NOAA to verify that the Server platform configurations for the CSTARS/Comprizon.Buy application environment at the Enterprise facility meet and/or exceed the minimum specified configuration requirements.

The end user application environment incorporates the use of the Citrix Metaframe application to provide user access to the CSTARS application(s). Each CSTARS Server will be required to support the following major software components:

- MS Windows NT 4.0/Terminals Server Edition Operating System;
- Comprizon.Buy Application; and
- Citrix Metaframe Server Application.

In order for CSTARS Comprizon.Buy software to be successfully installed and configured for support of the targeted community of CSTARS users. It is essential that the CSTARS Server configurations meet or exceed the minimal standard configurations listed below to ensure nominal performance of the Comprizon.Buy application.

For optimal performance and extended life cycle, please note the following CACI optimal configuration recommendations.

	MINIMUM CONFIGURATION	OPTIMAL (RECOMMENDED) CONFIGURATION
CPU/PROCESSOR SPEED	Pentium 400Mhz or Higher	Dual Pentium 500Mhz
MEMORY	1 GB RAM	2GB RAM
HDD/STORAGE	4GB Hard Disk Storage Space	9 GB Hard Disk Storage Space
OPERATING SYSTEM	MS Windows NT 4.0 Terminal Server Edition (Terminal Server Patch 3 +) or higher	MS Windows NT 4.0 Terminal Server Edition (Terminal Server Patch 3 +) or higher
CITRIX METAFRAME VERSION	1.0 or higher	1.0 or higher
ESTIMATED CONCURRENT COMPRIZON.BUY USERS *(PER SERVER)*	25	80

Appendix B - CSTARS Architectural Guidelines for Workstations

CSTARS ARCHITECTURAL GUIDELINES

FOR

COMPRIZON.BUY WORKSTATION CONFIGURATION

The following Architectural Guidelines are provided by CACI to DoC/NOAA to verify that the User Desktop platform configurations for access to the CSTARS/Comprizon.Buy application environment meet and/or exceed the minimum specified configuration requirements.

Since the end user configuration will utilize Citrix Metaframe ICA Clients, the there are few, if any, additional architectural requirements for the CSTARS user workstations. This is due to the fact that the application execution and processing that supports each user is performed on the CSTARS NT Terminal Server. The minimum configuration requirements listed below are primarily driven by the workstations operating system environment. If a CSTARS user workstation is adequately configured to support its native operating system and existing application suite, then it is sufficient to support the CSTARS application using the Citrix ICA Metaframe client access method. The minimum workstation listed below will support either thick or thin client configurations.

	MINIMUM CONFIGURATION	OPTIMAL (RECOMMENDED) CONFIGURATION
CPU/PROCESSOR SPEED	Pentium 166 Mhz or Higher	Pentium II/Celeron 300Mhz or higher
MEMORY	16-32 MB RAM	64-128 MB RAM
HDD/STORAGE	1 GB Hard Disk Storage Space	9 GB Hard Disk Storage Space
OPERATING SYSTEM	MS Windows 95	MS Windows 95/98/NT 4.0 or higher
INTERNET BROWSER	Netscape Navigator 4.0+ or MS Internet Explorer 4.0+	Netscape Navigator 4.0+ or MS Internet Explorer 4.0+
PRINTERS	HP LaserJet IV or higher (or equivalent)	HP LaserJet 5Si or higher

Appendix C- User Profile Checklist

CSTARS USER PROFILE/CONFIGURATION CHECKLIST

Name (First MI. Last): _____

Agent Code: _____

Login ID (NT Domain): _____

Title: _____

Office: _____

Phone Number: _____

Fax Number: _____

(Additional) Phone Number: _____

Internet Browser: _____

Authority:

- ☐ Buyer
- ☐ Contract Specialist
- ☐ Contracting Officer
- ☐ Contract Administrator
- ☐ Contracting Officer's Representative
- ☐ Administrative Contracting Officer
- ☐ Funds Certifying Officer
- ☐ Invoice Examiner

Warrant Level: _____

Supervisor: _____

E-mail Address: _____

Name or IP of SMTP Host: _____

SMTP Server's Port Number: _____

Temporary Directory: _____

Continuation Text Files: _____

Document Text Files: _____

Support Document/Text Files: _____

Appendix D – Frequently Asked Questions

The following information regarding CSTARS is presented for the good of all in achieving a successful implementation and end user adoption of the application. Please send any questions you have, via email, to the CSTARS Program Office with courtesy copy to CACI Program Director. Email addresses are cited below:

OAM: dyoung1@doc.gov **CACI:** jshackelford@caci.com

1. What is CSTARS and what does it do for me?

The Commerce Standard Acquisition and Reporting System (CSTARS) is an enterprise-wide system that provides a standard business process for the Department of Commerce's acquisition workforce and their customers.

The key guiding principle behind system deployment is bureau empowerment and not central ownership. From the beginning, each Bureau has participated in developing and documenting the business processes being used in CSTARS. That process, CSTARS SBP, contains three acquisition phases: plan the acquisition, screen vendors & award; and manage for results.

CSTARS will assist us in achieving various goals including:

- Increased opportunities for small business development;
- Reliable and accurate department-wide procurement-related financial data;
- Improved customer service and real time status to the customers;
- Lower purchasing costs; and
- Making strides towards becoming a Digital Department

2. What do I need to do to get CSTARS; When will I get it?

CSTARS pilot implementations have been completed at NIST and OS+. NOAA is next up on the agenda for rollout pending final consensus of key decision makers. Planning for Census implementation is set for late FY01 with rollout in FY02. Each Bureau has a designated CSTARS representative. The Department representative is Debra Young, (email is dyoung1@doc.gov).

We anticipate implementation starting in April with a conference room pilot to map the standard NOAA acquisition business practices to CSTARS. Concurrent with this action will be a user desktop audit and an architectural validation within each NOAA ASC to verify the in-place technical infrastructure and hardware configurations that will support the CSTARS application environment. We expect database installation and data initialization work to be done in May and legacy contract uploading for June. End user training and other implementation tasks will not interfere with fourth quarter procurement office activities. CSTARS training is expected to commence in October.

3. What is the level of effort required at Bureau level to implement CSTARS?

There is no requirement for new hire personnel in order to implement CSTARS. There is a need for management awareness and direct support to the staff in an effort to ensure all personnel know about and use the standardization in the acquisition business practices that are available using CSTARS. Depending on how requisition information will get from the end users into CSTARS, additional data entry help may be necessary. For AMD, with a relatively large user community, a core team may need to be dedicated to this implementation effort, which could necessitate supplemental staff support to backfill those positions.

It is recommended that each Bureau designate two "power users" from the existing staff at each ASC to serve as key contact personnel on matters related to CSTARS. These individuals will be designated as System Administrators (Technical SA and Functional SA). The Technical SA should be a member of the IT staff and will be responsible for system access, application backups, printer connectivity, system maintenance, and other system related matters. The Functional SA should be a member of the acquisition staff and will be responsible for day to day advice / assistance to CSTARS users on matters related to table data update, new user access to CSTARS, and functional problem resolution. Essentially, the functional SA is the first level of help prior to contact support from the CSTARS help center operated by CACI.

4. What is going on with the CSTARS / Core Financial (CFS) Interface? Is it going to be funded through the working capital fund or some other way?

The decision to interface CSTARS with CFS has been deferred for consideration in the FY02 and FY03 out years. It is anticipated that the contractor portion (about $650k) of the interface will be funded through the working capital fund. The CFS CAMS portion of the interface development (about $2M) requirement will be funded using NOAA direct funds. Obviously, these working estimates need to be scrubbed and fine tuned prior to requirement tasking.

5. Will CSTARS replace certain legacy systems such as CSPS, CPDS, or SPS?

Based the Business Case for Implementation of a Commerce-wide Automated Procurement System, dated January 19, 1999, CSTARS will replace the SPS, DGS, Contrack, ProDoc, and ProTrack applications at NOAA. Furthermore, there may be a cessation of CSPS use in NOAA and throughout the entire Department of Commerce .

No decision has been made regarding total replacement of CPDS; however, there is ongoing discussion to explore development of an automated process to extract CSTARS detail to the CPDS and avoid double keying. This will not be resolved prior to initial implementation activities of CSTARS at NOAA.

6. What documentation is available for CSTARS?

CSTARS documentation includes the following:

- CSTARS Desk Reference Guide containing standard acquisition business practices using CSTARS across the Department of Commerce as an enterprise solution. There are many screen captures and data element fields that have been completed to provide CSTARS examples for the end users.

- CSTARS Desk Reference Guide Addendum containing the business practice in CSTARS customized to each ASC based on the results of the business mapping sessions conducted during the early phases of the implementation. There are numerous screen captures and data element fields completed to further define and example the use of CSTARS for the end users. Beginning with the NOAA implementation, the CSTARS Desk Reference Guide and Addendums may be merged into a single bureau reference guide. However, this initiative must first be reviewed and approved by the Enterprise Team.

- CSTARS Desk Reference Guide: System Administration containing the specific information needed by the technical and functional system administrators to effectively support end users of CSTARS. There are numerous screen captures and data element definitions with completed entries to define and example the SA duties in CSTARS.

6. How will we transition from our current process to CSTARS?

Mapping activities will be conducted for each procurement business process to capture how work will be done in CSTARS. The CSTARS Team will document the business processes in a NOAA Addendum to be distributed to all users.

7. When will Training on CSTARS be?

The CSTARS Training methodology is straightforward: "Provide 'Just-in-Time' Training based on the CSTARS operating procedures, duties, and responsibilities of the end user." This "Just-in-Time" training is designed and scheduled to provide an effective approach for building and sustaining user confidence in CSTARS while reducing adverse impact of delays between user training and "live" production on the CSTARS system. The training will be scheduled based on the project timelines.

8. Where can I learn more about CSTARS or the CSTARS Contractor?

More information on the CSTARS Program is available on the Department Of Commerce OAM website at: http://oamweb.osec.doc.gov/cstars. Additional information about the CACI, the CSTARS contractor may be found at http://www.caci.com for corporate information; http://ebusiness.caci.com for electronic business capabilities and offerings; or http://www.sacons.com for information about Comprizon.Buy, the CSTARS automated procurement application.

Appendix E – OS+ Lessons Learned

OS+ Site Lessons Learned

The following is a compiled list of lessons that were learned during CSTARS implementation at OS+:

1. The local Clause Matrix set up was confusing to the users. The initial set up of how the users were to use up to 5 categories from local matrixes and tailor those clauses for the solicitation was considered, by the users, confusing and too much work. The problem has since been corrected and the organization of local clause matrixes is now very good and much less work for the CSTARS users.

2. Recommend that Simplified Acquisition classes and Contracting classes be conducted separately, if enough SAP students available. We received this recommendation from students that didn't want instruction that did not apply to them. We could have restructured the classes to the students if time had permitted.

3. Prefer that Requisition Preparation courses not be taught back to back with the Purchasing / Contracting Users courses. Note: Users may find some repetition between Requisition and Purchasing / Contracting Users courses (i.e. Administrative, Line Items functionality).

4. A) Try to group users with similar skill levels, as to keep the class moving. B) Require users that attend CSTARS classes have a prerequisite: Windows navigation.

5. When installing CITRIX for the 1st time, must be sure the user has logged into the network. Otherwise, when a user logs into the network, error message "Application set" not found will display. This requires a reinstallation of CITRIX and generally holds up the users efforts to do their work in the application.

6. Do Not use the 6 character BOC when attempting to copy accounting to the line items on a PR. The accounting string requires an 8 character code. If the 6 character code is chosen be prepared to wait for a long lookup on the server.

7. Make it more clear when the switch over to CSTARS for Production will take place. Users were unsure as to when the they were to start using the CSTARS system for production after the final training session was completed.

8. More participation in Business Mapping sessions. We experienced a light and turnout from the original expectations.

9. More management participation in both CSTARS classes and mapping sessions. The time frame that Business Mapping was being done – seemed to effect the time available for managers to attend the sessions.

10. More participation and interest in the migration the existing contract data. This may just be a shortage of resources to be available for data migration. We could not get all existing awards that have the 6 month life after production into CSTARS trying to use CACI resources.

11. Make sure that all printers are tested in CSTARS prior to the users attempting to print. We experienced many non working printers when going through the CITRIX connection in CSTARS. These problems, printing through CITRIX, require coordination with the Springfield data center and can become very time consuming to get resolved.

12. CSTARS end users found the Desk Guides to be very helpful, but suggested that two user manuals (CSTARS Enterprise Guide and the Bureau Addendum) was counter-productive to end user efficiency. Users were often required to go back and forth between the two guide documents to determine the correct procedure for their particular business environment. Users suggested that the two User Guide documents be merged into a single bureau-specific document.

Appendix F – NIST Lessons Learned

NIST Lessons Learned

NIST staff provided the following compiled list of lessons learned during CSTARS implementation at NIST:

1) Dedicate a core group of staff to work on the implementation full time.

2) Have that core group thoroughly trained on the system's functionality prior to the beginning of BPR.

3) Involve anyone who may be affected by transition to CSTARS to the BPR sessions, i.e., accounting, requisition end users, systems administrators, supervisors, clerks, purchasing agents, contract specialists.

4) Dedicate a resource responsible for keeping, developing and/or distributing meeting minutes, master logs of action items, project cost and schedule, lessons learned, presentations, etc.

5) Map the as-is business processes before beginning BPR. That will become your roadmap to ensure that no balls get dropped along the way.

6) Have a skilled facilitator working with you during the BPR to ensure that all issues are explored and a consensus reached.

7) Begin deciding early the universe of actions to be migrated into CSTARS. Train your staff to accurately gather and record the necessary information, and train a small group of people to add the migrated information into CSTARS. Include as many QA checks as possible, both on the data gathering side and the data input side, to minimize errors. This effort will require lots of time and lots of resources--you cannot afford to underestimate this part of the process.

8) Have a written agreement with OAM regarding who is paying for which costs and on what schedule.

9) Examine any service level agreement with OCS and determine if it meets your needs. If not, develop your own SLA and be prepared to pay for the difference in any costs.

10) Focus on the reporting aspects of the project early. Determine your needs, and fund the necessary resources and talent to make it work.

11) Prepare a realistic project schedule before beginning the project and stick to it as best you can. Send up smoke signals early if things are off track.

12) Communicate, communicate, communicate. This is a big change for many users, and they need to hear that management is behind the initiative and that life after CSTARS will be just fine. Be prepared to offer significant desk-side support, both contracted and internal, for an extended period of time after going into production.

13) Use BPR to identify opportunities to improve your processes, and document and communicate those decisions.

14) Look for a solid system's administrator. The person should have a practical technical background as well as be very conversant in acquisition.

15) Be prepared for the possibility of needing to hire additional staff. Production can take a nose dive for the first several months, and the users' frustration level can be very high. Assess the adverse impact your customers are willing to live with, and plan accordingly.

16) If you have staff that are computer illiterate, get them into basic windows application training now.

17) Be sure to teach your business rules. Document them in your manuals, make certain everyone knows what they are and where to locate them.

18) Be sure to restrict including and updating vendor records to a small core group of users.

19) Be sensitive to auditing issues, such as segregation of duties, logging levels, disaster recovery, etc. The strategy for addressing these types of issues may affect the decision of who should be performing duties such as application administration, vendor table maintenance, requisition entry.