

Technical Requirements Document

***Targeting and Analysis Systems Program Office
Automated Targeting System-Land***

***Document Number:
TASPO_ATS-L_TRD_1***

October 3, 2011



U.S. Customs and Border Protection

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Technical Requirements Document

Targeting and Analysis Systems Program Office

Automated Targeting System-Land

Executive Summary

Background

The purpose of this project is to enhance the Automated Targeting System's-Land application (ATS-L) to incorporate the analysis and rule-based risk assessment of the people crossing the nation's borders in vehicles. Upon completion of the processing and checking of the license plate numbers of vehicles and the Western Hemisphere Travel Initiative (WHTI) compliant documentation of the people seeking to cross the border, ATS-L will allow U.S Customs and Border Protection (CBP) officers to B7E [REDACTED] to produce a risk assessment for each vehicle and person. These assessments will assist CBP officers at primary booths in determining whether to allow a vehicle to cross or to send the vehicle to secondary for further examination.

Among the benefits envisioned in the implementation of this enhancement are:

- Providing real-time vehicle and person risk assessment capabilities to land border ports of entry;
- improving security at U.S. land borders by assessing which vehicles and people are more likely to be security risks; and
- (b) (7)(E) [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED].

The vehicle-only version of ATS-L is currently deployed to B7E [REDACTED]
[REDACTED]
[REDACTED]

Deliverables

(b) (7)(E) [REDACTED]
[REDACTED]

Schedule

The project manager maintains the schedule for this release through the Integrated Master Schedule (IMS).

Cost

TASPO Program Control maintains the cost estimates and budgets for this project.

Revision History

Document Number	Description of Revision	Author/ Person Responsible	Government Approval Authority	Date Approved
TASPO_ATS-P_TRD_1.0	Initial version: capture of technical requirements baseline	(b) (7)(C), (b) (6)	(b) (7)(C), (b) (6)	11/02/11

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Technical Requirements Document

Project Name: Targeting and Analysis Systems Program Office
Automated Targeting System-Land

Document Number: TASPO_ATS-L_TRD_1

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1. Introduction

This document refines and amplifies the information presented in the *Functional Requirements Document (FRD)* for ATS-L by adding technical information necessary to provide a basis for the design and programming of the system. See the *ATS-L Requirements Traceability Matrix* located within the project repository for specific mapping of the functional and technical requirements for this project.

The Project Manager and Team use the *Technical Requirement Document (TRD)* as they prepare for development of the system. The completed TRD also serves as input into the creation of the system design.

The TRD is approved by Business Sponsor and the Project Manager at a formal requirements certification review and baselined for configuration management purposes. After the TRD has been baselined, the Change Control Board (CCB) must approve changes to this document.

It complies with the policies and requirements of the U.S. Customs and Border Protection (CBP), System Engineering Life Cycle (SELC).

2. System Architecture

B7E, B6, B7C



Diagram 1: ATS-L lifecycle physical architecture

2.1. Functions/Subfunctions in the System Architecture

(b) (7)(E) [Redacted]

2.1.1. Interactive Functions/Sub Functions

2.1.1.1. ATS-L

(b) (7)(E) [Redacted]

2.1.1.2. Reports

(b) (7)(E) [Redacted]

2.1.1.3. Monitoring Site

(b) (7)(E) [Redacted]

2.1.2. Batch/Background Functions/Sub Functions

(b) (7)(E) [Redacted]

2.1.2.1. Data Loaders

(b) (7)(E) [Redacted]

2.1.2.2. Business logic

(b) (7)(E) [Redacted]

2.1.2.3. Rules Engine

(b) (7)(E) [Redacted]

2.2. Distribution

2.2.1. Client/Server

(b) (7)(E) [Redacted]
[Redacted]
[Redacted]
[Redacted]

2.2.2. Mainframe

(b) (7)(E) [Redacted]
[Redacted]

2.2.3. Host on Demand Mainframe Environment

Not applicable

2.2.4. Other Platforms

(b) (7)(E) [Redacted]
[Redacted]

2.3. System Interfaces

(b) (7)(E) [Redacted]
[Redacted]

- [Redacted]
[Redacted]
- [Redacted]
[Redacted]
[Redacted]
[Redacted]
- [Redacted]
[Redacted]
[Redacted]
- [Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
[Redacted]
- [Redacted]
[Redacted]
[Redacted]
[Redacted]

For complete details on the integration with these systems please refer to the Integration Control document.

2.4. Off-the-Shelf Packages or Components

(b) (7)(E) [Redacted]

- [Redacted]

2.5. Architecture Security

(b) (7)(E) [Redacted]

For a comprehensive analysis of the architecture security see the Security Plan document for ATS-L.

3. Technical Description

The following information is provided to assist in transforming the user's concept of the system into information that can be used by the development team.

3.1. System/Application Specification

3.1.1. Super Query

(b) (7)(E) [Redacted]

3.1.2. Ad Hoc Query

(b) (7)(E) [Redacted]

3.1.3. User Defined Rules

(b) (7)(E) [Redacted]

3.1.4. User Preferences

(b) (7)(E) [Redacted]

- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]
- [Redacted]

[Redacted]

3.1.5. Document Search and Upload

(b) (7)(E) [Redacted]

3.1.6. News Readers

The ATS-P system shall implement UI for the users to read and organize the news. The system shall categorize the news as national, available to all users, and as local, available only to users at a specific port.

News and other asynchronous data sources feed into a summary page. The news can be organized by port ID. The user can also broadcast news to other users.

News sources are listed in the (b) (7)(E) [Redacted]

When a set of news is displayed the system retrieves all the items published within the last 24 hours. There is no automated pushed update for news, so in order to get the latest news one must request the news again. When a news article is created and saved it is classified by the user as national or local and will automatically be displayed on the next request. There is no moderation or approval of news items.

3.2. System/Application Description

Please refer to the System/Application Specification.

3.3. Additional User Interfaces

(b) (7)(E) [Redacted]

3.4. System Risk Assessment

For a comprehensive analysis of the risk assessment see the Project Risk Management plan and the Risk Registry document.

4. Performance

(b) (7)(E) [Redacted]

4.1. Acceptable Response Times

(b) (7)(E) [Redacted]

- [Redacted]
- [Redacted]
- [Redacted]

[Redacted]

4.2. Data Transfer and Transmission Time Requirements

The ATS-L application copies most of its data to the TASPO Data Warehouse database, which runs on the same Oracle Server farm. The transfers take place nightly and are scheduled to avoid peak data processing times.

4.3. Data Transfer and Transmission Time

There is no specific requirement to transfer data by a certain time; however two conditions must be met:

- (b) (7)(E) [Redacted]

- (b) (7)(E) [Redacted]

4.4. Throughput Time

(b) (7)(E) [Redacted]

4.5. Availability

The ATS-L application is a mission critical application it is expected to be highly available. (b) (7)(E) [Redacted]

5. Inputs-Outputs

5.1. Inputs

Data inputs for all interactive components of the ATS-L application consist of one of the following:

- (b) (7)(E) [Redacted]
- [Redacted]
- [Redacted]

- Please refer to the Functional Requirements Document for a list of data sources providing input into the system

5.1.1. Medium

- Standard computer input devices (mouse, keyboard, touch screen, etc...)
- Electronic medium, available on the network, CD/DVD or a government-approved USB drive (IronKey).

5.1.2. Format

- For the interactive input, the format is (b) (7)(E) [Redacted]
- (b) (7)(E) [Redacted]

5.1.3. Range of Values

(b) (7)(E) [Redacted]

5.1.4. Scripts and maintenance

For the details on scripts used in support of the system please refer to the ATS-P Scripts document and for script maintenance please refer to the Maintenance manual.

5.2. Outputs

(b) (7)(E)

5.2.1. Explanations and Examples

For details please refer to the ATS-L Site Map.

5.2.2. Quality Controls

The ATS-L development team conducts peer reviews of all code prior to deploying to a production environment.

5.2.3. Printed Reports

The system does not generate printed reports, however, usability information is being distributed on a regular basis through email and through websites. For the specific names and distribution frequency of these reports please refer to the Communications Plan.

5.2.4. Graphic or Display Reports

When needed, reports will be generated that collect and chart data to provide users with graphical representations of data for analysis.

5.2.5. Output Files

The system does not specifically produce output files, but allows some pages and query results to be exported into Excel format.

5.2.6. Screen Displays

Refer to section 3 for a description of display results to be provided by the system.

6. Data Characteristics

For a comprehensive description of the data related to ATS-L see the ATS-L Data Management Plan.

6.1. Estimated Storage Requirements

(b) (7)(E)

6.2. Data Validation Requirements

(b) (7)(E)

6.3. Data Retention

ATS-L data will be stored for an indefinite period of time or until stakeholders officially request that this requirement be changed.

6.4. Data Security Requirements

Table 6-1 ATS-L Data Security

Data	Integrity	Data Availability	Data Privacy/ Confidentiality
All Other Data from data sources	Data elements must remain unchanged. The only changes to the data must come from data loaders, as the data of record changes at the source. All changes to all data elements shall have an auditable record	(b) (7)(E) [Redacted]	All data is FOUO. All PIA is handled according to US law and International Agreements
Administration and configuration data	All changes to all data elements shall have an auditable record	(b) (7)(E) [Redacted]	All data is FOUO.

Reference: *ATS-P Security Plan, ATS-P Data Management Plan*

7. Failure Requirements

7.1. Failure Consequences

Failure of the ATS-L system shall (b) (7)(E) [Redacted]

7.2. Failure Contingencies

Failure contingencies for ATS-L are addressed in the following:

- Office of Information and Technology (OIT) Disaster Recovery Plan
- Continuity of Operations Plan (COOP)
- Data Management Plan
- Exemptions

7.3. Backup

A copy of executable code is backed-up prior to every production release. (b) (7)(E) [Redacted]

7.4. Fallback

(b) (7)(E) [Redacted]

7.5. Recovery and Restart

(b) (7)(E) [Redacted]

8. Security Requirements

Refer to the *ATS-L Security Plan* for a discussion of the security / protection requirements associated with this project.

8.1. User Security Requirements

(b) (7)(E)

9. Implementation Strategy

For a description of the implementation strategy, refer to the *ATS-L Project Plan* and *Data Management Plan*. In addition, refer to the *ATS-L Training Plan* for a description of user and support personnel training requirements related to implementation of the new functionality associated with the project.

9.1. Functional Implementation

The ATS-L application will be implemented across all sectors and regions. Subsequent releases refining and adding new functionality will follow.

9.1.1. Development

All development should be performed on in the development environment against a statically cut subset of production data. After successful completion and general testing the code should be deployed against the stage SAT servers.

9.1.2. Site Acceptance Test (SAT) Environment

The stage environment should model the production environment as closely as is possible within reason, to ensure a smooth transition from stage to production. Deployment and testing in the SAT environment is regulated by the Configuration Management Process Guidelines and requires a SAT change request to be filled out. Please refer to the CM Process Guidelines for more details.

9.1.3. Production

Rollout to the production environment is regulated by TASPO policies and is done according to the procedure outlined in the Configuration Management Process Guidelines. It requires that a Change Request be filled out and approval from the CBP Change Control Board. Please refer to the CM Process Guidelines for more details.

9.2. Conversions

Not applicable.

10. Assumptions and Constraints

Refer to the *ATS-L Project Plan* for assumption and constraint details.

10.1. System Interactions

Refer to the *ATS-L Project Plan* for system and interaction details.

10.2. Financial Constraints

Financial constraints on the project are reflected (b) (7)(E) [REDACTED].

10.3. Legislative and Policy Constraints

The legislative and departmental requirements driving this project are focused on supporting DHS goals to protect U.S. borders:

- Prevent terrorists and weapons of mass destruction from entering the U.S.
- Identify, apprehend, detain, and remove aliens illegally in the U.S.
- File administrative and criminal charges against aliens who commit illegal acts
- Seize contraband associated with illegal alien activity

10.4. Hardware/Software & Operating Environment

Refer to the ATS-L Solution Design Document for comprehensive analysis of the hardware/software operating environment.

10.5. Availability of Information and Resources

Project stakeholders have committed to provide subject matter experts (SME) to be on-site, to work closely with project management and technical staff in communicating business requirements, informational materials, reviewing and validating functional specifications.

11. Glossary

Please refer to the Concept of Operations document for the glossary.