UNITED STATES ATTORNEYS’ OFFICE

United States Attorneys’ Virtual Office Network (USAVON)

Atlas Archive

Functional Requirements Document

Template



[Project Jira Identifier, ex. SAN21] – FRD – [Topic] – v0#

LIMITED OFFICIAL USE

**Revision History**

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| **Revision** | **Date** | **Purpose** |
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**Approval Page**



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**About this Document**

A requirement is a condition that the application must meet for the customer to find the application satisfactory. A requirement has the following characteristics:

•      It provides a benefit to the organization. That benefit is directly traceable to the business  
       objectives and business processes in the 5-Year IT or Strategic Plan.

•      It describes the capabilities the application must provide in business terms.

•      It does not describe how the application provides that capability.

•      It does not describe such design considerations as computer hardware, operating system,  
       and database design.

•      It is stated in unambiguous words. Its meaning is clear and understandable.

•      It is verifiable.

The functional requirements document (FRD) is a formal statement of an application's functional requirements. The FRD has the following characteristics:

•      It demonstrates that the application provides value to the DOJ in terms of the business  
       objectives and business processes in the 5-year plan.

•      It contains a complete set of requirements for the application. It leaves no room for  
       anyone to assume anything not stated in the FRD.

•      It is solution independent. The FRD is a statement of what the application is to do-not of  
       how it works. The FRD does not commit the developers to a design. For that reason, any  
       reference to the use of a specific technology is entirely inappropriate in an FRD.

**How to Use this Template**

1. Introduction

This is the *Atlas Archive* Functional Requirements document. It contains the requirements for *Atlas Archive* and has been prepared for the Executive Office of the United States Attorneys (EOUSA).

* 1. Project Description

The Atlas Archive provides an automated way for case folders to be cataloged and archived onto two separate hard drives, for redundancy, before being purged from the server. Requests for archiving created via a work order or when the case is closed in Atlas. The two external drives are called a “set”. Once the drives in a set are full, a new set is put in their place. Requests for restore can also be done via a work order or from within Atlas. Restores are manually done because older sets may need to be plugged in to be brought back online. Atlas tracks when the destruction date is for the case and creates a work order to have the case manually purged from the drive set when needed.

* 1. Project Points of Contact

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|  |  |  |  |

* 1. Audience (Optional Section)

This document is available for review to any program team member, affected business unit(s), IT infrastructure owners/managers, Security, and any client build team that are identified.

* + 1. Background

As of the writing of this automation, there were no methods for archiving digital case data without substation cost to the district. The digital data needs to be retained for specific amount of time after case closure and tracking that data and destruction date and critical to make sure our data doesn’t get out of control.

* + 1. Purpose

Provide an automated way to archiving and tracking the content to be archived. There needs to be a way to catalog what was archived, redundancy in storage and a way to eventually purge the case data when the destruction date arrives.

* + 1. Assumptions and Constraints

*Assumptions are future situations, beyond the control of the project, whose outcomes influence the success of a project. The following are examples of assumptions:*

*•      Availability of a hardware/software platform  
•      Pending legislation  
•      Court decisions that have not been rendered  
•      Developments in technology*

*Constraints are conditions outside the control of the project that limit the design alternatives. The following are examples of constraints:*

*•      Government regulations  
•      Standards imposed on the solution  
•      Strategic decisions*

*Be careful to distinguish constraints from preferences. Constraints exist because of real business conditions. Preferences are arbitrary. For example, a delivery date is a constraint only if there are real business consequences that can happen as a result of not meeting the date. For example, if failing to have the subject application operational by the specified date places the DOJ in legal default, the date is a constraint. A date chosen arbitrarily is a preference. Preferences, if included in the FRD, should be noted as such.*

* + 1. Interfaces to External Systems

*Name the applications with which the subject application must interface. State the following for each such application:*

***•****Name of application*

***•****Owner of application (if external to the DOJ)*

***•****Details of interface (only if determined by the other application)*

* 1. References

*Name the documents that were sources of this version of the FRD. Include meeting summaries, white paper analyses, CONOPS, CBA, and other System Development Life Cycle deliverables, as well as any other documents that contributed to the FRD. Include the Configuration Management identifier and date published for each document listed.*

1. FUNCTIONAL REQUIREMENTS

*The functional requirements describe the core functionality of the application. This section includes the data and functional process requirements.*

* 1. Data Requirements

*Describe the data requirements by producing a logical data model, which consists of entity relationship diagrams, entity definitions, and attribute definitions. This is called the application data model. The data requirements describe the business data needed by the application system. Data requirements do not describe the physical database.*

* 1. Functional Process Requirements

*Process requirements describe what the application must do. Process requirements relate the entities and attributes from the data requirements to the users' needs.*

*State the functional process requirements in a manner that enables the reader to see broad concepts decomposed into layers of increasing detail.*

*Process requirements may be expressed using data flow diagrams, text, or any technique that provides the following information about the processes performed by the application:*

***•****Context*

***•****Detailed view of the processes*

***•****Data (attributes) input to and output from processes*

***•****Logic used inside the processes to manipulate data*

***•****Accesses to stored data*

***•****Processes decomposed into finer levels of detail*

1. OPERATIONAL REQUIREMENTS

*Operational requirements describe the non-business characteristics of an application.*

*State the requirements in this section. Do not state how these requirements will be satisfied. For example, in the Reliability section, answer the question, "How reliable must the system be?". Do not state what steps will be taken to provide reliability.*

*Distinguish preferences from requirements. Requirements are based on business needs. Preferences are not. If, for example, the user expresses a desire for sub-second response but does not have a business-related reason for needing it, that desire is a preference.*

* 1. Security

*The security Section describes the need to control access to the data. This includes controlling who may view and alter application data.*

*State the consequences of the following breaches of security in the subject application:*

***•****Erasure of contamination of application data*

***•****Disclosure of Government secrets*

***•****Disclosure of privileged information about individuals*

*State the type(s) of security required. Include the need for the following as appropriate:*

***•****State if there is a need to control access to the facility housing the application.*

***•****State the need to control access by class of users. For example, "No user may access**any part of this application who does not have at least a (specified) clearance."*

***•****State the need to control access by data attribute. State, for example, if one group of**users may view an attribute but may not update it while another type of user may update**or view it.*

***•****State the need to control access based on system function. State for example, if there is a**need to grant one type of user access to certain system functions but not to others. For**example, "This function is available only to the system administrator."*

***•****State if there is a need for accreditation of the security measures adopted for this**application. For example, C2 protection must be certified by an independent authorized**organization.*

* 1. Audit Trail

*List the activities that will be recorded in the application's audit trail. For each activity, list the data to be recorded.*

* 1. Data Currency

*Data currency is a measure of how recent data are. This section answers the question, "When the application responds to a request for data how current must those data be?" Answer that question for each type of data request.*

* 1. Reliability

*Reliability is the probability that the system will be able to process work correctly and completely without being aborted.*

*State the following in this section:*

***•****What damage can result from this system's failure?*

*-**Loss of human life  
-**Complete or partial loss of the ability to perform a mission-critical function  
-**Loss of revenue  
-**Loss of employee productivity*

***•****What is the minimum acceptable level of reliability?  
State required reliability in any of the following ways:*

***•****Mean Time Between Failure is the number of time units the system is operable before the**first failure occurs.*

***•****Mean Time To Failure is computed as the number of time units before the system is**operable divided by the number of failures during the time period.*

***•****Mean Time To Repair is computed as the number of time units required to perform**system repair divided by the number of repairs during the time period.*

* 1. Recoverability

*Recoverability is the ability to restore function and data in the event of a failure.*

*Answer the following questions in this section:*

***•****In the event the application is unavailable to users (down) because of a system failure,**how soon after the failure is detected must function be restored?*

***•****In the event the database is corrupted, to what level of currency must it be restored? For**example "The database must be capable of being restored to its condition on no more**than one hour before the corruption occurred."*

***•****If the process site (hardware, data, and onsite backup) is destroyed how soon must the**application be able to be restored?*

* 1. System Availability

*System availability is the time when the application must be available for use. Required system availability is used in determining when maintenance may be performed.*

*In this section state the hours (including time zone) during which the application is to be available to users. For example, "The application must be available to users Monday through Friday between the hours of 6:30 a.m. and 5:30 p.m. EST." If the application must be available to users in more than one time zone state the earliest start time and the latest stop time.*

*Include the times when usage is expected to be at its peak. These are times when system unavailability is least acceptable.*

* 1. Fault Tolerance

*Fault tolerance is the ability to remain partially operational during a failure. Describe the following in this section:*

***•****Which functions need not be available at all times?*

***•****If a component fails what (if any) functions must the application continue to provide?**What level of performance degradation is acceptable?*

*For most applications, there are no fault tolerance requirements. When a portion of the application is unavailable there is no need to be able to use the remainder for the application.*

* 1. Performance

*Describe the requirements for the following:*

***•****Response time for queries and updates*

***•****Throughput*

***•****Expected volume of data*

***•****Expected volume of user activity (for example, number of transactions per hour, day, or**month)*

* 1. Capacity

*List the required capacities and expected volumes of data in business terms. For example, state the number of cases about which the application will have to store data. For example, "The project volume is 600 applications for naturalization per month." State capacities in terms of the business. Do not state capacities in terms of system memory requirements or disk space.*

* 1. Data Retention

*Describe the length of time the data must be retained. For example, "information about an application for naturalization must be retained in immediately accessible from for three years after receipt of the application."*

1. REQUIREMENTS TRACEABILITY MATRIX

*The requirements traceability matrix (RTM) provides a method for tracking the functional requirements and their implementation through the development process. Each requirement is included in the matrix along with its associated section number. As the project progresses, the RTM is updated to reflect each requirement's status. When the product is ready for system testing, the matrix lists each requirement, what product component addresses it, and what test verify that it is correctly implemented.*

*Include columns for each of the following in the RTM:*

***•****Requirement description*

***•****Requirement reference in FRD*

***•****Verification Method*

***•****Requirement reference in Test Plan*

1. Appendix A-Glossary

*Include business terms peculiar to the application. Do not include any technology-related terms.*

1. Acronyms and Abbreviations

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| Abbreviation | Definition |
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