

FUNCTIONAL and TECHNICAL REQUIREMENTS DOCUMENT

ABCD Implementation Project

<Sample> Implementation Collaborative
On behalf of
<Sample> Continuum of Care
<Sample> Continuum of Care
<Sample> Continuum of Care
<Sample> Continuum of Care

Month, Year

Developed by:

<Name of Author(s)>
<Company Name>

Functional Requirements Document Authorization Memorandum

I have carefully assessed the Functional and Technical Requirements Document for the (System Name).

MANAGEMENT CERTIFICATION - Please check the appropriate statement.

_____ The document is accepted.

_____ The document is accepted pending the changes noted.

_____ The document is not accepted.

We fully accept the changes as needed improvements and authorize initiation of work to proceed. Based on our authority and judgment, the continued operation of this system is authorized.

NAME
ABCD Project Manager

DATE

NAME
ABCD Lead Agency Director

DATE

NAME
CoC Chair/ Co-Chair

DATE

NAME
CoC Chair/ Co-Chair

DATE

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NOTE TO AUTHOR: Highlighted, italicized text throughout this template is provided solely as background information to assist you in creating this document. Please delete all such text, as well as the instructions in each section, prior to submitting this document. **ONLY YOUR PROJECT-SPECIFIC INFORMATION SHOULD APPEAR IN THE FINAL VERSION OF THIS DOCUMENT.**

The Functional Requirements Document provides the user a clear statement of the functions required of the system in order to solve the CoC's information problem.

Light blue highlighted text throughout this template identifies where your CoC will need to inject or customize information.

1.0 GENERAL INFORMATION

1.1 Purpose

The purpose of this functional and technical requirements document is to provide documentation to prospective ABCD solution providers on the requirements of <this Continuum of Care (or Implementing Jurisdiction)> to implement and operate a Homeless Management Information System.

1.2 Scope

This Functional and Technical Requirements Document will outline the functional, performance, security and other system requirements identified by the <CoC or Collaborative Name> as the proposed information system solution for a Homeless Management Information System.

1.3 Project References

Key documents needed as supporting references to this document are listed below and must be taken into consideration by prospective solution providers while responding to the details outlined in this document:

- Housing and Urban Development (HUD) Homeless Management Information System (ABCD) Data and Technical Standards, July 2004

1.4 Acronyms and Abbreviations

<Provide a list of the acronyms and abbreviations unique to your ABCD implementation (a CoC name, Collaborative Name, acronyms commonly used by your community) that are used in this document and the meaning of each.>

1.5 Points of Contact

1.5.1 Information & Coordination

Provide a list of the point(s) of organizational contact (POCs) that may be needed by the prospective solution provider for informational and coordination purposes. Include type of contact, contact name, department, telephone number, and e-mail address (if applicable), and project oversight function. POCs may include ABCD Lead Agency Staff, CoC Lead Agency Staff, or CoC subcommittee member (if any portion of the implementation process is going to be

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overseen by the subcommittee member). Oversight responsibilities include software implementation and training, financial administrator, problem resolutions, etc.

Below is a list of Point of Contacts relevant to this project:

Contact Name	Contact Type	Department	Telephone Number	Email	Oversight Function
	ABCD Lead Agency				Implementation Financial Training
	CoC Lead Agency				General Governance High Level Decisions Problem Resolution

2.0 CURRENT SYSTEM SUMMARY

The <collaborative or CoC Name> does not currently have a community-wide data collection system.

3.0 FUNCTIONAL REQUIREMENTS AND USER IMPACTS

In this section, list and describe the functions you want your ABCD to be able to do. Describe proposed data collection and flow. If functions from an existing system are to be incorporated, describe these functions. Explain (in non-computer-oriented language) how the proposed system will interact with the service delivery system it is meant to support. Identify products and other systems that will be could be used with, or become part of, the proposed system. Describe the relationship between the project and other community capacities being developed concurrently.

3.1 Summary of Functions

The <CoC or Collaborative Name> requires a technology based solution for a community-wide data collection and management system whose primary function is to:

- Expedite and streamline the process of delivery of service to homeless individuals and families
- Determine the size and scope of the homeless problem at the local level
- Assess service needs and gaps across the community
- Plan services and programs appropriately to address local needs
- Measure progress in addressing homelessness
- Measure performance of individual programs and the system as a whole

3.1.1 Functional Requirements

In order to accomplish the above articulated need, the <CoC or Collaborative Name> requires a community-wide data collection and management system that includes the following functionality:

- Client Management Services
 - Client specific tracking of intake process, including program entry and exit
 - Socio-demographic data, including capacity to record family and household relationships
 - Retention of client specific historical data
 - Outreach Program Client Management: Ability to house incomplete records with a process for adding records to primary database when record is indicated complete

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- Case Management
 - Client specific assessment of needs
 - Retention of client specific historical data
 - Ability to track client specific goals and outcomes
 - Ability to share client level data across agencies
 - Flexibility for data sharing to accommodate agency selected data element masking (ability to close part or all of a client record to other agencies), including the ability to impose time limits on the sharing of all or part of a client record
- Service Tracking
 - Service Delivery Management: Ability to document and retain history of client specific services received by client, including ability to document planning, scheduling and follow up on delivery of services
 - Referral Management: Ability to document and retain history of client specific referrals, including follow up, reminder capabilities, and status/outcome
- Bed Management
 - Day-to-day management of community bed capacity at the agency level
 - Capacity to house real time information on availability of community housing capacity, including private landlord units (Housing Registry)
- Information and Referral
 - Real time link to community's Information and Referral database of available resources (i.e., 2-1-1) OR capacity to build and maintain an integrated I & R within the community's ABCD
 - Electronic submission of applications for mainstream resources
 - Benefits eligibility assessments
- HUD ABCD Data and Technical Standard Compliancy
 - System must meet all of the compliancy standards for data collection as well as the baseline compliancy standards for privacy and security outlined in the HUD ABCD Data and Technical Standards
- Reporting Capacity
 - Capacity to generate program, agency, community, and, if applicable, collaborative level reports.
 - Standard, built-in reports and forms required by the U.S. Department of Housing and Urban Development (HUD), including the SHP Annual Progress Report, HUD's Annual Homeless Assessment Report (AHAR) table shells, data validation reports, an unduplicated client count report, and basic client demographic reports
 - Integrated ad hoc reporting capacity that maintains user level security restrictions while allowing for user flexibility in choosing tables and fields as well as filtering and conditional report aspects.
 - Capacity to import and export data through XML and CSV formats, including ability for regular, community initiated imports and exports and ability to securely strip data of identifiers and manage data transmission while insuring a high accuracy of un-duplication rate.
- System Security
 - Integrated technical safeguards to ensure a high level of privacy and security, including
 - Back end server(s), including data encryption and transmission
 - Administrator controlled user name and password access
 - Automatic timeout/log-off
 - Administrator controlled user level read, write, edit and delete capabilities
 - Administrator controlled user level module and sub-module access
 - Automated audit trail

- Information Security Industry Standard encryption and SSL certifications (currently 128-bit)
- All technical safeguards required to be HIPAA compliant
- All security safeguards required for compliancy to the HUD ABCD Data and Technical Standards

3.2 Summary of User Impacts

The purpose of this section is to summarize the anticipated impacts and associated costs (detailed in the following subsections) of the proposed system on the existing organizational and operational environments of the user, as well as to the user during the development of the system. Organizational impacts may include the modification of responsibilities and the addition or elimination of responsibilities that will be necessary to use the proposed system.

Use the Staffing Worksheet and the ABCD Staffing Models document in your workbook to identify new staff for the ABCD and/or any new roles and responsibilities for existing staff.

3.2.1 User Organizational Impacts

The project will require at least one new staff position at the ABCD Lead Agency whose sole responsibility is the administrative, project management, and training duties of the ABCD on behalf of the Continuum of Care. Financial management of the ABCD will be overseen by the finance department of the ABCD Lead Agency.

Additionally, a new data (ABCD) governance structure has been put in place to oversee and manage the community's data. This new structure replaces the idealism of "sole source" data in agency silos with "community source" data that provides cross-agency data for planning and evaluation. Oversight of the ABCD will be regulated to a ABCD subcommittee of the CoC and monitoring of the ABCD will be performed by the CoC Monitoring committee.

Agencies will continue to have access to their data and reporting, but publication of community-wide data will be authorized by the CoC.

3.2.2 User Operational Impacts

In anticipation that the ABCD will eventually replace a variety of agency-level manual, homegrown or less technologically advanced client management systems, a primary organizational impact for agency-level staff will be the external administration and oversight of their data and collection processes. While some supporting manual processes are likely to remain, agencies will become dependent on staff external to their agency (i.e., the ABCD Lead Agency staff) to ensure the availability and usability of a system upon which they will heavily rely. This organizational impact will inherently cause some angst on behalf of the agency-level staff and has been acknowledged and addressed through Agency Participation Agreements.

Users will interact with the system in real-time via the web. Agencies will be expected to acquire and maintain a secure and reliable internet connection adequate to facilitate data entry by their staff. Questions on the software and data entry will be facilitated by the ABCD Lead Agency as opposed to direct contact with the software vendor. Agencies will need to alter their intake forms and internal processes to accommodate the expected data collection and data entry, including timeliness protocols set forth in the ABCD Policy and Procedures Manual. To meet compliancy standards, data will be collected and documented in the ABCD on all clients and will meet the CoCs Data Quality Standard also set forth in the ABCD Policy and Procedures Manual.

In the event of staffing complications or natural disasters, agencies will maintain a manual intake and assessment process which will be sufficient to complete the data entry upon staffing or natural disaster resolution.

3.2.3 User Developmental Impacts

All users will be required to participate in a series of trainings prior to access to the system, including basic ABCD, ethics, client privacy and confidentiality, data security, and software.

Agencies may continue a parallel system based on their prior data collection processes until such time that the new system is deemed stable.

4.0 PERFORMANCE REQUIREMENTS

This section provides a detailed description (in non-computer-oriented language) of the performance requirements of the proposed system.

4.1 Specific Performance Requirements

4.1.1 Accuracy and Validity

The system will employ numerous data quality assurance techniques, including but not limited to:

- Input masks
- Drop down lists with standard responses
- Record data completeness requirements
- Basic data logic warnings (i.e., Gender: Male with Pregnancy status: Y)

4.1.2 Timing

The system will be available online 24 hours per day, 365 days per week with the exception of scheduled and pre-notified system maintenance downtimes.

Data will become immediately available for use, both during input and for reporting unless otherwise negotiated with the hosting vendor. The hosting vendor will ensure that system resources are adequate for timely report generation response times and overall software functionality. The hosting vendor will ensure that system updates, software updates, and regular system maintenance is not completed during peak operation periods.

4.1.3 Capacity Limits

The <Continuum or Collaborative Name> anticipates the daily input of <Insert Number of records expected to be input daily across all agencies> client records with an average of <insert number of users expected to be on the system daily> of daily users utilizing the system concurrently. Peak usage timeframes are anticipated to be between <insert beginning daily peak time> and <insert ending daily peak time> daily.

The hosting vendor will ensure that the central server has the capacity to store an annual <insert # of anticipated annual records input (average annual unduplicated client count times 2.5)> record input cumulative for a period of 10 years as well as associated storage capacity for retention of historical data and reporting.

4.1.4 Failure Contingencies

In the event of a natural disaster, the hosting agency will ensure continuity of available by having adequate, tested disaster and recovery protocols and solutions in place that will facilitate minimal system availability. The hosting vendor will also ensure completion and validation of daily backups of both the client records and system structure.

5.0 ADDITIONAL SYSTEM REQUIREMENTS

This chapter may be used to document additional technical requirements when they do not directly relate to the functions and performance that is obvious to the user, and therefore have not been described previously.

5.1 System Description

The proposed ABCD system will consist of a web-based, centralized database for client management and reporting. Generally, all users will provide direct input into the system and outputs (reports) will also be generated directly from the system. However, to ensure growth ability, flexibility is also required for both input and output modes.

Participating agencies will provide input (i.e., client level data) and the ABCD Agency, as an agent of the CoC, will provide system administration and support for report generation.

5.2 Systems Integration

An additional desired functionality of the system is systems integration. The ABCD will be required to have the capacity to import and export data without ongoing support by the software vendor. The ability to customize and automate import and export utilities, with date specification and transaction receipts is highly prioritized. The import/export programming language must either be open or a reliable and flexible data transfer tool must be integrated with the software to facilitate the secure and reliable transfer of data between multiple and diverse external systems.

5.3 Customization and Flexibility

The desirability for the software vendor to continually update and improve the general software is a given. However, the <CoC or Collaborative Name> will also require that the software be flexible and customizable to suit their needs. It is highly preferable that this flexibility and customization be an administrative ability at the <CoC or Collaborative Name> level.

6.0 EQUIPMENT AND SOFTWARE

In this section, concentrate on what your local needs for equipment will be, i.e., hardware and software for your ABCD Lead Agency and your participating agencies.

The cost of the central server will most likely be negotiated with the hosting vendor, who will have to provide maintenance on it.

6.1 Equipment

The ABCD Lead Agency will be responsible for procuring equipment for the ABCD Lead Agency staff and negotiating the cost of the central server and disaster recovery equipment with the hosting vendor. The ABCD Lead Agency will rely on the software vendor to provide basic system (hardware) requirements as part of the RFP process.

Participating agencies will be responsible for updating and/or purchasing equipment for their agency's data input requirements. This includes a computer and accessories along with printers, routers, cabling, and internet access requirements. The <CoC or Collaborative Name> does not make any requirements on this equipment other than it must meet at a minimum the hardware requirements provided by the software vendor and must be of a condition that will allow for ongoing data entry.

6.2 Software

The ABCD Lead Agency will be responsible for procuring the primary software package for the ABCD implementation as well as any supporting software required for the ABCD Lead Agency staff. The ABCD Lead Agency will rely on the software vendor to provide basic system (software) requirements as part of the RFP process.

Participating agencies will be responsible for updating and/or purchasing software licenses for their agency's data input requirements, including annual licensing fees for the primary ABCD software package. This software includes a computer operating system sufficient to run the primary ABCD software and that includes user authentication, user inactivity timeout security, and system audit trails, internet access software, anti-virus and anti-spy ware, firewall software, and any other supporting software. The <CoC or Collaborative Name> does not make any requirements on this software other than it must meet at a minimum the software requirements provided by the software vendor and meets the minimum security requirements of the ABCD Data and Technical Standards.

6.3 Communications Requirements

Communication between the User and the ABCD system will be through the worldwide web.

6.4 Interfaces

Interfaces with other application systems and subsystems will be facilitated via the ABCD import and export functions. The base specification is that the import and export function must meet, at a minimum the HUD approved XML and/or CSV format and meet the security standards from the HUD ABCD Data and Technical Standards. Specifications for specific links to other systems will be outlined in other technical requirements documents as separate projects.

7.0 SECURITY

The ABCD software and hardware maintained by the ABCD Lead Agency, the Hosting Vendor, and the Participating Agencies must all meet the minimum security requirements of the HUD ABCD Data and Technical Standards.

These Requirements include:

- System Security
 - User Authentication
 - Virus Protection
 - Firewalls
 - Public Access
 - Physical Access to System with Access to ABCD Data
 - Disaster Protection and Recovery
 - Disposal
 - System Monitoring
- Software Application Security

- User Authentication
- Electronic Data Transmission
- Electronic Data Storage
- Hard Copy Security
 - Protection of any hard copy generated by or for ABCD that contains Personal Protected Information when the hard copy is in a public area.