ALABAMA MEDICAID AGENCY

RECIPIENT SUBSYSTEM MODERNIZATION PROJECT

RECIPIENT SUBSYSTEM INTERFACE CONTROL DOCUMENT TEMPLATE

Interface Title:

Interface Number:

REVISION HISTORY

Version Number	Date	Reviewer	Comments

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LIST OF FIGURES AND TABLES

LIST OF ACRONYMS

The following acronyms are used throughout this document:

Acronym	Definition
ICD	Interface Control Document
ITB	Invitation to Bid

NOTE to reader: This is an instructional template in that one will see font in italic blue and black. The blue italics are suggestions and/or instructions as to what should be included in that particular section. It describes the intent, assumptions and context for the content that should be covered and must be removed when completing this template for individual interfaces. Blue text enclosed in angle brackets (i.e., <text>) indicates a field that should be replaced with information specific to the particular project. The font should be changed to match the boilerplate language. The black font should remain as part of the boilerplate language needed in completing this template for each interface.

Please remove this note.

1 GENERAL

1.1 Introduction

This Interface Control Document (ICD) describes the relationship between the <Source System Name (Acronym)> (the source system) and the <Target System Name (Acronym)> (the target system).

This ICD specifies the interface requirements to be met by the participating systems. It describes the concept of operations for the interface, defines the message structure and protocols that govern the interchange of data, and identifies the communication paths along which the data are expected to flow.

Changes to this document, once established, will be controlled by the signatories.

1.2 Interface Descriptions

- *A general description and identification of the interface*
- *Assumptions where appropriate*
- *A description of the data exchange format and protocol for exchange*
- *Estimated size and frequency of data exchange*

1.3 Description of system Comprising Interface

The owner of the ICD should include a separate paragraph here for each system that comprises the interface, providing sufficient description to definitively identify the systems participating in the interface. Describe any security or privacy considerations associated with use of the ICD.

2 REFERENCED DOCUMENTS

This section provides identifying information for all documents used to arrive at and/or referenced within the ICD (e.g. related and/or companion documents, prerequisite documents, relevant technical documentation, etc.).

Table 1 Documents Referenced

Document Name	Document Number	Issuance Date
<document name>	<document's configuration item control number>	<Month Day, Year>

The owner of the ICD should summarize the relationship of this document to other relevant documents (e.g., the Requirements Document, High-Level Technical Design Concept/Alternatives, Logical Data Model, System Design Document, Database Design Document, and Release Plan, if they exist.

3 PROJECT CONTEXT

3.1 Alabama Medicaid Agency

The Alabama Medicaid Agency (Agency) is responsible for assuring that Medicaid eligible Alabamians have the opportunity to request and receive Medicaid services by qualifying through an eligibility process. Providers of direct services are reimbursed for medical services received by Medicaid beneficiaries. The Agency makes reimbursement for different services and functions using Federal and State matching funds. The Federal Financial Participation's (FFP) Federal Medical Assistance Percentage match (FMAP) for specific Medicaid cost can be up to 75 percent or higher with most other administrative costs receiving 50 percent Federal funding. The remaining funding percentage is made up of State or other funding sources.

Medicaid in Alabama covers the following groups:

- Infants born to Medicaid-eligible pregnant women
- Children under age 6 and pregnant women whose family income is at or below 133 percent of the federal poverty level (FPL)
- Children ages 6-18 whose family income is up to 100 percent of the federal poverty level
- Recipients of adoption assistance
- Children in foster care through the Department of Human Resources (DHR)
- Children in the care of the Department of Youth Services (DYS)
- Low income families with at least one child under 19 living in the home who meet the eligibility requirements in the State's Aid to Families with Dependent Children (AFDC) plan in effect on July 16, 1996
- Supplemental Security Income (SSI) recipients determined eligible by the Social Security Administration (SSA)
- Certain Medicare beneficiaries whose income is below a certain limit
- Special protected groups, including those who lose eligibility for cash assistance or supplemental security income (SSI) due to an increase in earnings from work, Social Security benefits, or child/spousal support
- Institutionalized individuals with income and resources below specified limits
- Certain aliens may receive emergency services if they meet all other program requirements except for citizenship/alien status

- Females under age 65 in need of treatment for breast or cervical cancer who have been referred through the National Breast and Cervical Cancer Early Detection Program
- Individuals who qualify for optional waiver programs, such as Plan First (family planning), State of Alabama Independent Living (SAIL), Elderly and Disabled, Mentally Retarded, Technology Assisted, and Human Immunodeficiency Virus (HIV)/Acquired Immune Deficiency System (AIDS)

3.2 Recipient Subsystem Modernization Project

The ultimate goal of the Recipient Subsystem Modernization Project is the modernization of the AMMIS recipient subsystem and its related subsystems. This includes ensuring that the new Recipient Subsystem conforms to the following:

- Meets or exceeds Federal certification and performance standards
- Uses electronic data and automated processes whenever possible
- Uses a modular, flexible approach to systems development, including the use of open interfaces and exposed application programming interfaces; the separation of business rules from core programming; and the availability of business rules in both human and machine readable formats
    - Supports the eligibility determination and ongoing Beneficiary case management processes through a rules engine approach
- Supports accurate and timely processing of 'claims' of eligibility and effective communications with providers, beneficiaries, and the public
- Provides a Decision Support System (DSS)
- Allows future changes in Alabama Medicaid programs to be implemented accurately, efficiently, and timely in an easily configurable manner
- Fully communicates within the Agency and outside entities
- Facilitates data extraction for reporting and analysis that results in accurate and useful information that reflects the dynamics of the program
- Produces transaction data, reports, and performance information that would contribute to program evaluation, continuous improvement in business operations, and transparency and accountability
- Ensures alignment with, and incorporation of industry standards: the Health Insurance Portability and Accountability Act of 1996 security, privacy and transaction standards; accessibility standards established under section 508 of the Rehabilitation Act, or standards that provide greater accessibility for individuals with disabilities, and compliance with Federal civil rights laws; standards adopted by the Secretary under section 1104 of the Affordable Care Act; and standards and protocols adopted by the Secretary under section 1561 of the Affordable Care Act
- Aligns to and advances increasingly in Medicaid Information Technology Architecture (MITA) maturity for business architecture, data, and the continuing evolution of the MITA initiative

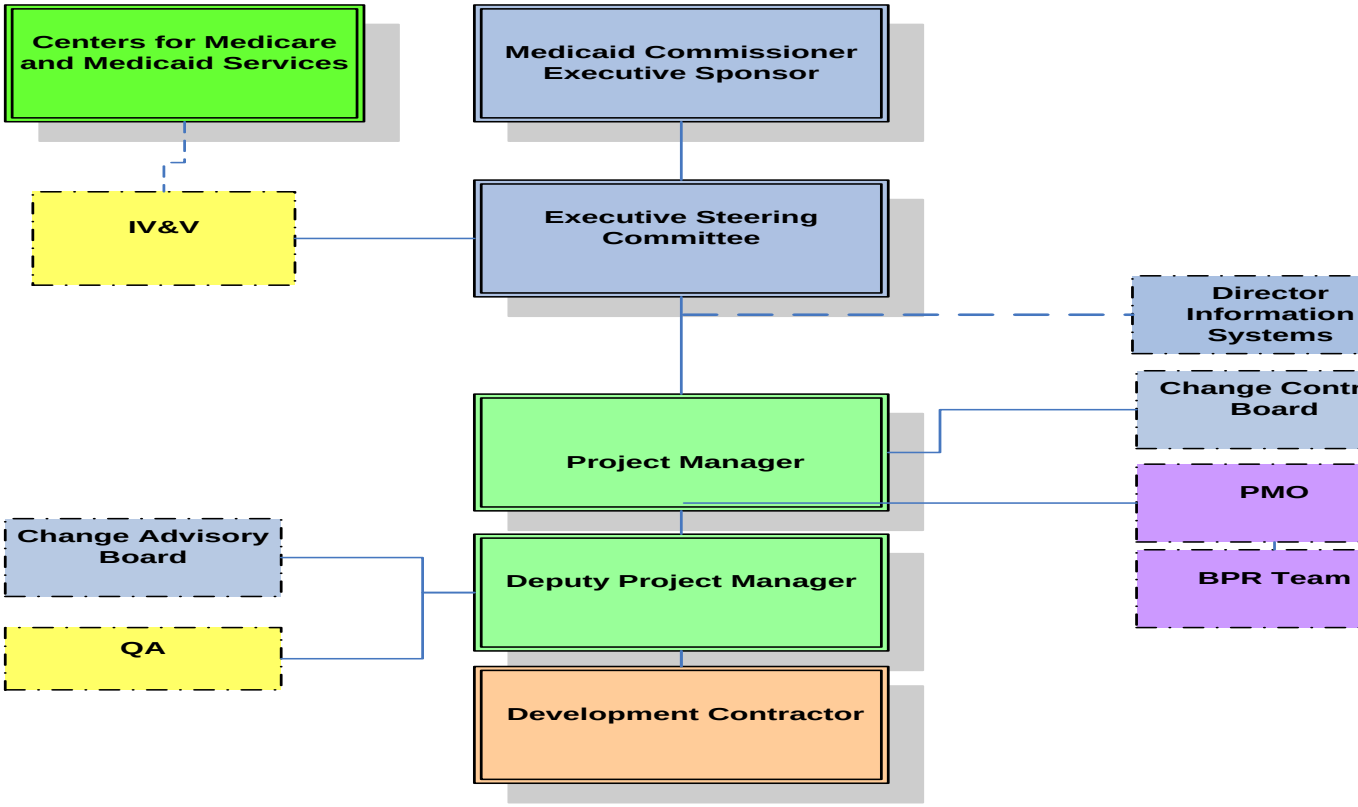
- Performs to the requirements of the Affordable Care Act (ACA)
- Ensures seamless coordination and integration with the Exchange (whether run by the State, Federal government or other entity), and allows interoperability with health information exchanges, public health agencies, human services programs, and community organizations providing outreach and enrollment assistance services
- Focuses on a Service Oriented Architecture (SOA)
- Utilizes multi-tier (N-Tier) architecture, Internet browser pages, thin clients, relational database structure and multiple security levels
- Maximizes the use of the Internet/Intranet as an operational tool to perform functions such as Beneficiary Services and other related support functions and use the Internet to enhance receipt and distribution of information to Agency staff, other State Agencies, Federal agencies, private entities, and the recipient community
- Is rigorously tested and properly installed prior to the start of operations or production implementation
- Promotes sharing, leverage, and reuse of Medicaid technologies and systems within and among States

3.3 Governance

The Commissioner of the Medicaid Agency, the Executive Steering Committee, and the Recipient Subsystem Project Manager shall head the governance over this development effort. The Executive Steering Committee shall have approving authority on all contracted requirements, deliverables and issues falling under this development effort. The Commissioner shall have final approving authority on issues that require a decision above that of the Executive Steering Committee. The Agency has designated a Recipient Subsystem Deputy Project Manager to perform the overall management of the DDI project from the Agency's perspective. The Primary Coordinator, Secondary Co-Coordinators, and MMIS Coordinator shall assist the Recipient Subsystem Project Manager and the Vendor with resolving questions or issues involving the Agency staff and stakeholders.

The Agency has established a Project Manager level Change Control Board for overall project change control, and a Deputy Project Manager level Change Control Board to govern the development effort of the DDI Vendor. The Deputy Project Manager CCB will be comprised of the Deputy PM, DDI PM and QA representative. This CCB meets informally on a daily basis to make decisions regarding the DDI project. They will also meet formally on a weekly basis to document change requests, decisions, etc. Information from these weekly meetings will be incorporated into the Recipient Subsystem Project level CCB meetings. Decisions that cannot be made at the DPM CCB level will be escalated to the project manager level board.

The project organization chart in below depicts the governance of this RFP.



3.4 Project Schedule Requirements

List the time frames within which this interface is to be design, developed, tested and deployed.

3.5 Interface Completion Requirements

List those requirements that must be met in order to determine that the interface is complete.

3.6 Points of Contact

List here the individuals from both the target and source agency along with their contact information.

3.7 Purpose

The ICD should briefly describe the purpose of the interface to another external system at a functional level. It should be specific to the business reason as to why this interface is needed, how it will be used and what requirements are being addressed. Some context in regards to how this interface fits into the application as a whole should be provided.

For example: This Interface Control Document (ICD) documents and tracks the necessary information required to effectively define the <Project Name> system's interface as well as any rules for communicating with them in order to give the development team guidance on architecture of the system to be developed. The purpose of this ICD is to clearly communicate all possible inputs and outputs from the system for all potential actions whether they are internal to the system or transparent to system users. This ICD is created during the Planning and Design Phases of the project.

3.8 Interface Requirements Reference

List here the requirements which support this interface.

3.9 Assumptions/Constraints/Risks

3.9.1 Assumptions

Describe any assumptions or dependencies regarding the interface. These may concern such issues as: related software or hardware, operating systems, or end-user characteristics.

3.9.2 Constraints

Describe any limitations or constraints that have a significant impact on the system interfaces. Such constraints may be imposed by any of the following (the list is not exhaustive):

a) Hardware or software environment
b) End-user environment
c) Availability of resources
d) Interoperability requirements
e) Interface/protocol requirements
f) Data repository and distribution requirements

3.9.3 Risks

Describe any risks associated with the system interfaces and proposed mitigation strategies.

4 GENERAL INTERFACE REQUIREMENTS

4.1 Source System

Describe the functionality and architecture of the source interfacing system(s) as they relate to the proposed interface. Briefly summarize the system, placing special emphasis on functionality, including identification of key hardware and software components, as they relate to the

interface. In defining the interface, clearly state which of the systems (source or target) a requirement is being imposed upon.

4.2 Target System

Describe the functionality and architecture of the target interfacing system(s) as they relate to the proposed interface. Briefly summarize the system, placing special emphasis on functionality, including identification of key hardware and software components, as they relate to the interface. In defining the interface, clearly state which of the systems (source or target) a requirement is being imposed upon.

4.3 End-user Interaction

Briefly describe what operations are performed in the interface and how the end users will interact with the interface being defined. If the end user does not interact directly with the interface being defined, describe the events that trigger the movement of information using the interface being defined. It is suggested that this should be documented in the form of Swim Lanes Diagrams for "To Be" processes.

4.4 Data Transfer

Briefly describe how data will be moved between systems of the interface being defined. Include descriptions and diagrams of how connectivity between the systems will be implemented and of the type of messaging or packaging of data that will be used to transfer data between the systems.

4.5 Transactions

Briefly describe the types of transactions that will be used to move data among the component systems of the interface being defined. If multiple types of transactions will be used for different portions of the interface, a separate section may be included for each transaction.

4.6 Security and Integrity

If the interface defined has security and integrity requirements, briefly describe how access security will be implemented and how data transmission security will be implemented for the interface being defined. Include a description of the transmission medium to be used and whether it is a public or a secure line. Include a brief description of how data will be protected during transmission and how data integrity will be guaranteed. Include a description of how the two systems can be certain they are communicating with each other and not with another system masquerading as one of them. Describe how an individual on one system can be audited and held accountable for resulting actions on the other component of the interface. Normally, this section should be an overview of how security and integrity will be implemented.

An interface that is completely self-contained, such as movement of data between systems resident in the same computer room, may not have any security requirements. In this case it

should be so stated with an explanation of why the interface has no security and integrity requirements.

5 DETAILED INTERFACE REQUIREMENTS

This section specifies the requirements for one or more interfaces between two systems. This includes explicit definition of the content and format of every message or file that may pass between the two systems, and the conditions under which each message or file is to be sent. If an interface between the two systems is to be implemented incrementally, identify the implementation phase in which each message will be available. The structure in Section 6.1 should be replicated for each defined interface between the two participating systems.

The template contained in Section 6.1 (including subsections) provides a generic approach to interface requirements definition. The specific interface definition should include only subsections relevant to the interface being defined, and liberty may be taken in the organization of Section 6.1 subsections. Where types of information not specified in Section 6.1 are required to clearly define the interface, additional subsections should be added. Other readily available documents (such as data dictionaries, standards for commercial protocols, and standards for user interfaces) may be referenced instead of stating the information here. It may be useful to include copies of such documentation as appendices to the ICD. Where possible, the use of tables and figures is encouraged to enhance the understandability of the interface definition. In defining interface requirements, clearly state which of the interfacing systems the requirement is being imposed upon.

5.1 *<Interface Name>* Requirements

Briefly summarize the interface. Indicate what data protocol, communication methods, and processing priority are used by the interface. Data protocols may include messages and custom ASCII files. Communication methods may include electronic networks or magnetic media.

5.1.1 Assumptions

Identify any assumptions that specify organizational responsibilities for specific activities or decisions, or that defines specific constraints. Assumptions might include:

- *Data acceptance constraints*
- *Individual(s) responsible for establishing and managing the communication protocol*
- *Individual(s) responsible for providing and/or accepting file feeds for test and production procession*
- *Individual(s) responsible for decisions on acceptance of test results*

5.1.2 Data Selection Criteria

This section should describe specifically which data will be selected and/or excluded in the interface. For an example "Select all individuals that have submitted a new application since the last time the interface ran".

5.1.2.1 Data Selection Criteria Flow Diagram

This section should be a visual reflection of the data selection criteria employing the use of process steps, decision points, and writing of records.

The following represents an example of such a flow but other flow types (i.e. swim lanes) are acceptable:

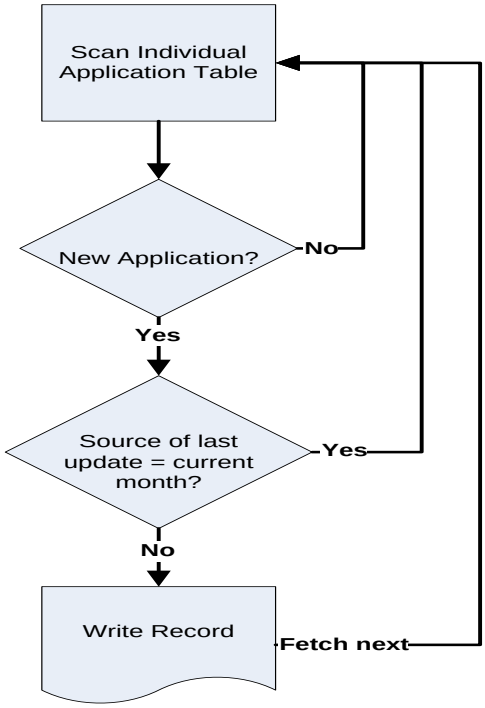


Figure 1 Example Criteria Flow Diagram

5.1.3 Interface Processing Time Requirements

If information is required to be formatted and communicated as the data is created, as a batch of data is created by operator action, or in accordance with some periodic schedule, indicate processing priority. Requirements for specific messages or files to be delivered to the communications medium within a set interval of time should be included in Subsection 5.1.3. State the priority that the interfacing entities must assign to the interface. Priority may be stated as performance or response time requirements defining how quickly incoming traffic or data requests must be processed by the interfacing system to meet the requirements of the interface. Considerable latitude should be given in defining performance requirements to account for differences in hardware and transaction volumes at different installation sites of the interfacing systems. Response time requirements which are impacted by resources and beyond the

control of the interfacing systems (i.e., communication networks) are beyond the scope of an ICD.

5.1.4 Message Format (or Record Layout) and Required Protocols

Specify the explicit definitions of and the conditions under which each message is to be sent. Describe the definition, characteristics, and attributes of the command. Query and response descriptions should also be documented.

5.1.4.1 File Layout

This section lays out the specifics of the interface that is the subject of this ICD. This section should contain diagrams and short descriptions of both the header and detail layouts. This information may be included in an appendix to the document that is referenced here.

5.1.4.1.1 Interface Header Layout (If Applicable)

Table 2 Header Layout Example

Field Name (logical name)	External Agency Field Length	Position	External Agency Data Type	External Agency Value Range	RS Table Name	RS Data Element Name	RS Data Element Format	RS Data Element Length	Comments

5.1.4.1.2 Interface Trailer Layout (If Applicable)

Table 3 Trailer Layout Example

Field Name (logical name)	External Agency Field Length	Position	External Agency Data Type	External Agency Value Range	RS Table Name	RS Data Element Name	RS Data Element Format	RS Data Element Length	Comments

5.1.4.1.3 Interface Detail Layout

Table 4 Detail Layout Example

Field Name (logical name)	External Agency Field Length	Position	External Agency Data Type	External Agency Value Range	RS Table Name	RS Data Element Name	RS Data Element Format	RS Data Element Length	Comment

Field Name (logical name)	External Agency Field Length	Position	External Agency Data Type	External Agency Value Range	RS Table Name	RS Data Element Name	RS Data Element Format	RS Data Element Length	Comment
Indiv. SSN	*9*	*1-9*	*A-numeric*	*None*	*CLIENT*	*ID SSN_NUM*	*Numeric*	*9*	
Race Code	*1*	*27*	*A-numeric*	*A-Z, 7,8*	*CLIENT CLIENT_RACE*	*ID CLIENT_RACE_CODE_CD_K*	*Variable Character*	*6*	***RS Size Discrepancy** – See "Valid Values – Race" Below*
Date of Birth	*8*	*154-161*	*Date*	*Date*	*CLIENT CLIENT*	*ID BIRTH_DTE*	*Date*	*8*	*Format: MMDDYYYY*
Amount Paid	*9 (6,2)*	*255-263*	*Numeric*	*None*	*CLIENT_INC_AMT*	*GROSS_INC_AMT*	*Numeric*	*14*	*The amount paid. Format: "dddddd.cc"*

5.1.4.2 Data Assembly Characteristics

Define the content and format of every message, file, or other data element assembly (records, arrays, displays, reports, etc.) specified in Subsection 5.1.4. In defining interfaces where data is moved among systems, define the packaging of data to be utilized. The origin, structure, and processing of such packets will be dependent on the techniques used to implement the interface. Define required characteristics of data element assemblies that the interfacing entities must provide, store, send, access, receive, etc. When relevant to the packaging technique used, the following information should be provided:

- *Names/identifiers*
- *Project-unique identifier*
- *Non-technical (natural language) name*
- *Technical name (e.g., record or data structure name in code or database)*
- *Abbreviations or synonymous names*
- *Structure of data element assembly (e.g., field name, type, length, valid values, etc.)*
- *Visual and auditory characteristics of displays and other outputs (e.g., colors, layouts, fonts, icons, and other display elements, beeps, lights) where relevant*
- *Relationships among different types of data element assemblies used for the interface*
- *Priority, timing, frequency, volume, sequencing, and other constraints (e.g., whether the assembly may be updated and whether business rules apply)*
- *Sources (setting/sending entities) and recipients (using/receiving entities)*

5.1.4.3 Field/Element Definition

Define the characteristics of individual data elements that comprise the data packets defined in Subsection 5.1.4.2. Sections 5.1.4.2 and 5.1.4.3 may be combined into one section in which the data packets and their component data elements are defined in a single table. Data element definitions should include only features relevant to the interface being defined and may include such features as:

- *Names/identifiers*
- *Project-unique identifier*
- *Priority, timing, frequency, volume, sequencing, and other constraints (e.g., whether the data element may be updated and whether business rules apply)*
- *Non-technical (natural language) name*
- *Technical name (e.g., variable or field name in code or database)*
- *Abbreviation or synonymous names*
- *Data type (alphanumeric, integer, etc.)*
- *Size and format (e.g., length and punctuation of a character string)*
- *Units of measurement (e.g., meters, dollars, nanoseconds)*
- *Range or enumeration of possible values (e.g., 0-99)*
- *Accuracy (how correct) and precision (number of significant digits)*
- *Security and privacy constraints*
- *Sources (setting/sending entities) and recipients (using/receiving entities)*
- *Validation rule(s)*

If there is a need to reformat data before they are transmitted or after incoming data is received, include descriptions of the tools and/or methods for the reformatting process.

5.1.4.4 Reference Data/Valid Values

This section provides the values for data elements that are being exchanged as part of this interface:

Table 5 Example of Data Exchange

Race Codes	
RS Race Codes	***DPH Race Codes***
AMINAL American Indian/Alaska Native	*A Asian or Pacific Islander*
ASIAN Asian	*B Black*
BLKAA Black/African American	*C Caucasian*
NHOP Native Hawaiian/Other Pacific	*D Subcontinent Asian American*
WHITE White	*E Other*
	F Asian Pacific American
	G Native American
	H Hispanic
	I American Indian or Alaskan Native

Race Codes	
RS Race Codes	**DPH Race Codes**
	J Native Hawaiian
	N Black (Non-Hispanic)
	O White (Non-Hispanic)
	P Pacific Islander
	Z Mutually Defined
	7 Not Provided
	8 Not Applicable

5.1.5 Communication Methods

Communication requirements include all aspects of the presentation, session, network, and data layers of the communication stack to which both systems participating in the interface must conform. Document the specifications for hand-shaking protocols between the two systems. Include the content and format of the information to be included in the hand-shake messages, the timing for exchanging these messages, and the steps to be taken when errors are identified. The following subsections should be included in this discussion as appropriate to the interface being defined and may be supplemented by additional information as appropriate.

5.1.5.1 Interface Initiation

Define the sequence of events by which the connections between the participating systems will be initiated. Include the minimum and maximum number of conceptions that may be supported by the interface. Also include availability requirements for the interface (e.g., 24 hours a day, 7 days a week) that are dependent on the interfacing systems. Availability requirements beyond the control of the interfacing systems (e.g., network availability) are beyond the scope of an ICD.

5.1.5.2 Flow Control

Specify the sequence numbering, legality checks, error control, and recovery procedures that will be used to manage the interface. Include any acknowledgement (ACK/NAK) messages related to these procedures. Address the format(s) for error reports exchanged between the systems and their disposition (e.g., retained in a file, sent to a printer, flag/alarm sent to the operator, etc.).

5.1.5.2.1 Outgoing Error and Recovery

The intent of this section is to outline:

- *The list of errors that have been accounted for in the design of this interface*
- *Restate the error number and error message information that must be coded into the interface error handling mechanisms*
- *Document the recovery methods for each type of error. For instance if the interface is an ETL conversion which experienced a fatal error, may the batch job simply be restarted*

once any identified issues are fixed, or does this batch job required a checkpoint/restart method to start processing where the batch left off, etc.

- *How are the errors logged? Is there a logging framework that applies across interfaces, or must a specific log file be created for this interface?*
- *Is there any monitoring necessary to pass failures or other information to the support team? For example, does a log file need to be monitored for specific errors being written to the file? What are the details? Do any queue depths need to be monitored and exactly how? Does a process need to be monitored in case it goes down?*

Include discussion as to what validation checks such as record counts, file formats, source stamps, and date-time stamps will be performed on the data transferred. What happens when errors are discovered in the data exchange, i.e., the agency will be notified immediately by operations personnel. If there are systemic problems, counterparts will be contacted to work issues.

The following table summarizes some of the key components related to an outgoing interface that encounters errors:

Table 6 Outgoing Error Handling, Logging and Monitoring Information

Category	Value	Remarks
Exception handling	*<Please indicate the requirements in case that the interface fails>*	
Exception logging	*<ERR1024>*	
Error Message Text	*<Mandatory information not furnished>*	
Triggering Condition	*<Required fields not supplied>*	
Recovery Options	*Indicate conditions how to compensate the interface (retry, re-execute, cancel)*	*Should the process simply be restarted after any issues are resolved? Can the message(s) be re-sent? Is there checkpoint, restart processing that needs to be implemented? Is there parallel processing of data (batch) taking place?*
Exception	*List any other exception here*	
Monitoring	*Required or Not*	*What exactly should be monitored and how? What should happen in the event of failure?*

5.1.5.2.2 Self-Balancing Procedures

This section should specify any self-balancing procedures necessary; i.e. checking incoming trailer record for records sent and verifying same number received and processed.

5.1.5.3 Incoming Error & Recovery

The intent of this section is to outline the same applicable information as previously described for outgoing error and recovery.

The following table summarizes some of the key components related to an incoming interface that encounters errors:

Table 7 Incoming Error Handling, Logging and Monitoring Information

Category	Value	Remarks
Exception handling	*<Please indicate the requirements in case that the interface fails>*	
Exception logging	*<ERR1024>*	
Error Message Text	*<Mandatory information not furnished>*	
Triggering Condition	*<Required fields not supplied>*	
Recovery Options	*Indicate conditions how to compensate the interface (retry, re-execute, cancel)*	*Should the process simply be restarted after any issues are resolved? Can the message(s) be re-sent? Is there checkpoint, restart processing that needs to be implemented? Is there parallel processing of data (batch) taking place?*
Exception	*List any other exception here*	
Monitoring	*Required or Not*	*What exactly should be monitored and how? What should happen in the event of failure?*

5.1.6 Match Criteria

This section addressed what will be used in the RS to associated incoming data to an individual. Also to be addressed is what happens to records where no match occurs or if there are discrepancies.

5.1.7 Additional Processing

This section is where any specify handling is required such as if an individual is a member of any record (active or inactive) other than the active case that is the subject of the interface how will the information be stored, an ID is not known to the system, etc.

5.1.8 Technical Notes

Specific points needed by the developers that are not covered elsewhere such as: Individual's recipient IDs will be used to associate the incoming data to an Active Medical Assistance AU.

An alert will be available to the worker that is responsible for the active MA AU member that is affected by the information.

5.1.9 Security Requirements

Specify the security features that are required to be implemented within the message or file structure or in the communications processes. Specify the security of the communication methods used (Include safety/security/privacy considerations, such as encryption, user authentication, compartmentalization, and auditing). For interactive interfaces, security features may include identification, authentication, encryption, and auditing. Simple message broadcast or ASCII file transfer interfaces are likely to rely on features provided by communication services. Do not specify the requirements for features that are not provided by the systems to which the ICD applies. Specifically state if the interface relies solely on physical security or on the security of the networks and firewalls through which the systems are connected.

5.2 Common Interface Details

The following table reflects the common elements of this interface design. Some of these details may be referenced elsewhere but are repeated here for a summary view and easy reference. Where there are details that need further elaboration or are not common to the systems involved in this interface they will be detailed further in the remaining sections of this ICD.

Table 8 Common Interface Details

Shared Details	Medicaid	<Agency Name>	Remarks
Source or Target	*<Source, Target>*	*<Complete same information for the external interface source>*	*<Other pertinent constraints, conditions or observations regarding this detail>*
System to System or File Transfer	*< System to System /File transfer>*		
Source (IP & Physical Location)	*<IP & Physical Location>*		
Target (IP & Physical Location)	*<IP & Physical Location>*		
Port to Open or Location of File	*<Port, Location>*		
Type	*<Batch, real-time>*		
Priority Assigned to	*<High, Medium, Low>*		*<Reason for priority and if interfacing*

Interface			*entities do not have the same priority why there is a difference of priority>*
Communication Protocol	*<i.e. Secure FTP>*		
Data Security	*<i.e. Secure FTP>*		
Average Volume Exchanged	*<Estimated volume in normal conditions. For ETL this is typically expressed by number of records per run and an estimate of total size of data per run. For Messaging this is typically expressed in number or messages per hour or minute (depending on frequency) and average and maximum message sizes.>*		
Peak Volume Exchange	*<Estimated peak volume>*		
Allowable Volume Exchanged	*<Maximum file size>*		
Frequency	*<On-demand, NRT, Daily/Nightly , one time load>*		*<On-demand, Near Real-time, Daily/Nightly, Weekly, Periodically, Data Migration>*
Scheduling	*<Job Name or Process Name>*		
Start Time	*<Provide information for required start time (for scheduled interfaces) or state On-request>*		
Estimated duration	*<Estimated duration for the execution in normal conditions*		

	(minutes)>		
Allowable delay	*<Estimate the allowable delay for this interface before it has a major impact on business operations or dependent interfaces or process flows>*		
Pre-Run-time dependencies	*<Describe any other procedures, priorities, processes or jobs to be executed prior to running this interface, or any other interfaces or jobs are to be initiated after successful or unsuccessful run of the current job>*		
Post-run-dependencies	*<Describe any processes, jobs or interfaces that need to be started after this interface completes (normally or abnormally)>*		
Acknowledgement	*< Medicaid will send an email to the external agency's production control staff, when the file is received>.*		
Authentication	*<Specify Authentication>*		*To confirm a system entity's asserted principal identity with a specified, or understood, level of confidence*
Authorization	*<Specify Authorization>*		*An authorization scheme controls whether an interface is established between communication nodes The act of evaluating access control*

			information, as to whether a subject is allowed the specified types of access to a particular resource.
End of Process Notification			
Batch Log/Control Totals	*<i.e. Number of records by type>*		
Output Distribution (Reports)	*<Name of report or none>*		
Transmission Error and Recovery	*< When a problem is encounter with the transmission to or from an external agency system, etc.>*		
Data Retention	*<None, One year, etc.>*		
Performance Requirements	*<Define how quickly incoming traffic or data requests must be processed by the interfacing system to meet the requirements of the interface. Considerable latitude should be given in defining performance requirements to account for differences in hardware and transaction volumes at different installation sites of the interfacing systems.>*		

Complete the above table for the interface that is the subject of this ICD. Please note that Medicaid Agency will always be listed.

5.3 Overview of Transmission Procedural Steps

This is a summary of the transmission procedural steps to be taken with the interface such as select individuals, create file, transmit file, record that the record was sent, send acknowledgment. It is usually best to include a swim lane to reflect the process.

6 QUALIFICATION METHODS

This section describes a set of qualification methods to be used and how the interface is going to be tested to verify that the requirements for the interface defined in Section 5 have been met. Qualification or testing methods include:

Demonstration – *The operation of interfacing entities that relies on observable functional operation not requiring the use of instrumentation, special test equipment, or subsequent analysis.*

Test – *The operation of interfacing entities using instrumentation or special test equipment to collect data for later analysis.*

Analysis – *The processing of accumulated data obtained from other qualification methods. Examples are reduction, interpretation, or extrapolation of test results.*

Inspection – *The visual examination of interfacing entities, documentation, etc.*

Special Qualification Methods – *Identify any special qualification methods for the interfacing entities (e.g., special tools, techniques, procedures, facilities, and acceptance limits).*

7 KEY DESIGN DECISIONS

The intent of section is to document the key decisions and the rationale for those decisions governing the detailed design of the solution. Decisions documented here are often at a lower or more detailed level, and reflect issues that come up during the detailed design activities. A sample table to capture the information is provided below. One should be completed for each key design decision.

Table 9 Key Design Decisions

Subject Area	
Design Decision	
Issue or Problem	
Assumptions	
Motivation	

Alternatives	
Decision	
Justification	
Implications	
Derived requirements	
Related Decisions	

APPENDIX A - GLOSSARY

Provide clear and concise definitions for terms used in the ICD that may be unfamiliar to readers of the document. Terms are to be listed in alphabetical order.

<Term Name>

<Term definition>

<Term Name>

<Term definition>

APPENDIX B: APPROVAL PAGE

APPROVALS

Obtain signature approval of the final document from the delivering organization's point of contact and the primary Alabama Medicaid Agency point of contact. Additional signature lines may be added as needed. Identification and signature approval of those individuals who have agreed to the interface(s) defined in the ICD should also be included in this section. Coordination internally of approvals is the responsibility of each participating agency.

<Source System Name (Acronym)> Approving Authority:

Signature	Printed Name	Date
Position Title	Email	Phone Number

<Target System Name (Acronym)> Approving Authority:

Signature Phone Number	Printed Name	Date
Position Title	Email	Phone Number