HOUSING COUNSELING SYSTEM (HCS-F11) AGENCY REPORTING MODULE (ARM-F11M)

DRAFT INTERFACE CONTROL DOCUMENT (ICD)
ARM 5

U.S. Department of Housing and Urban Development
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Revision Sheet

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Section	Date	Changes
1.1	07/15/2014	Updated purpose to include Office of Housing Counseling and counselor profile.
1.3	07/15/2014	Updated Points of Contacts to reflect current staff.
1.4	07/15/2014	Updated ARM ICD Reference

1.5	07/15/2014	Revised definition for client; added term and definition for Household. Added OHC to abbreviations.
2.1.1	07/15/2014	Revised to refer to ARM initial pilot in the past tense.
2.1.3	07/15/2014	Updated to include CMS ID and password.
2.2	07/15/2014	Updated to include CMS ID and password.
2.2.2	07/15/2014	Updated to remove references to non-supported versions of ARM (3.0 and 3.1) and add ARM 5.0.
2.2.2.1	07/15/2014	Updated information on non-supported versions of ARM databags 3.0 and 3.1.
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2.2.9	07/15/2014	Updated XML tags to reflect ARM 5.
3.1	07/15/2014	Updated HUD 9902 Form Version number.
4.0	07/15/2014	Updated field descriptions and XML tags to reflect ARM 5.
5.0	07/15/2014	Updated to refer to ARM 5.0 SDK
7.0	07/15/2014	Updated to refer to ARM 5.0 SDK
8.0	07/15/2014	Updated to refer to ARM 5.0 SDK
9.0	07/15/2014	Removed error related to reporting period ID as the element was removed from the submission header in ARM 5.0. Updated XML tags referenced for ARM 5.0. Updated Form_9902 Totals message.
4	07/30/2014	Updated APPENDIX A: XML TAG DESCRIPTIONS to include details on where to find the Rural Area identifier on USDA.gov.
10	07/30/2014	Added new section 10 Appendix G ARM 4.0 V13.2.5.0 CHANGE COMPARISON TO ARM 5.0.
2.2.2	09/02/2014	Fixed section numbering for sections 2.2.2.1 – 2.2.2.3.

4	09/02/2014	Updated APPENDIX A: XML TAG DESCRIPTIONS to: • Fix a typo in the element names for Ethnicity of Households – Not Hispanic and Ethnicity of Households – Chose not to respond. • Remove the word “integer” from the field description for Agency Counseling Budget. • Add URL for HUD published AMI dataset for income level fields.
10	09/02/2014	Updated Appendix G: ARM 4.0 V13.2.5.0 CHANGE COMPARISON TO ARM 5.0 to identify change in XML schema for change to max allowable characters for RefId from 10 to 18.
10	09/25/2014	Updated Appendix G: ARM 4.0 V13.2.5.0 CHANGE COMPARISON TO ARM 5.0 to identify change in XML schema for form_9902_databag_5_0.xsd to allow for the same element to be submitted multiple times for different activity types.
4	12/05/2014	Updated APPENDIX A: XML TAG DESCRIPTIONS to include mapping of USDA Rural Area determination to the HUD 9902 and client fields for Rural Area, and further guidance on Activity Type IDs.
11	12/05/2014	Added Appendix H: USDA RURAL AREA STATUS DETERMINATION

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1.0 GENERAL INFORMATION

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Disclaimer - This Interface Document was provided to supply the CMS vendors with the appropriate technical information needed to build an interface between each CMS and the Housing Counseling System Agency Reporting Module (HCS ARM).

1.1 Purpose

The Office of Housing Counseling (OHC) HCS project is intended to assess the state of the housing counseling industry. Since the industry uses Client Management Systems (CMS) to track their counseling activities and their data, HUD has developed an interface to receive the HUD 9902 form, agency profile, counselor profile, and client-level data from those existing systems. HUD-Approved agencies participating in HUD's Housing Counseling Program are required to utilize a CMS product to automate their counseling services to collect, store, and transmit HUD required information. This document provides guidance and requirements for their CMS vendor to follow to conform to HUD's standards. Those CMS vendors that conform to the standards addressed in this document will be published as authorized vendors for agencies to select from. Any agency that uses a CMS product not listed will need to provide their CMS vendor this document to ensure their CMS can properly transmit HUD required data and reports.

1.2 Scope

This document summarizes the requirements necessary for this interface to be accomplished. It is a technical reference and therefore its main audience is computer programmers, database administrators, and analysts who develop software to produce, analyze or handle data products that conform to this specification.

1.3 Points of Contact

HCS F11 POCs

The following table lists the HCS Points of Contact (POC's) that may be beneficial for future reference.

Contact Type	Contact	Phone	E-mail
Department of Housing and Urban Development, Project Leader	George Grotheer	202.402.2294	George.H.Grotheer@hud.gov
Salient Federal Solutions Project Manager	Theresa Houck	571.766.2889	theresa.houck@salientfed.com
Salient Federal Solutions System Consultant	Vadim Pshenichnikov	202.413.3369	vadim_arm@dotcenter.net

1.4 Project Reference

The following is a list of the references that were used in preparation of this document.

Reference	Date
ARM INTERFACE CONTROL DOCUMENT (ICD) 2.0.0.3	09/2011

1.5 Terms and Abbreviations

The following is a list of the terminology used in this document and the meaning of each.

Terminology	Definition
Agency	HUD approved organization that performs housing counseling. They are responsible for sending required information to HUD. The levels are defined as: ➢ National Intermediaries (NIs) and their affiliates and branches, ➢ Regional Intermediaries (RIs) and their affiliates and branches, ➢ Multi-State Organizations (MSO) and their affiliates and branches, ➢ State Housing Finance Agencies (SHFA's) and their sub-grantees, and ➢ HUD-approved Local Housing Counseling Agencies (LHCAs) and their branches.
Asynchronous / Synchronous	In computer programs, asynchronous operation means that a process operates independently of other processes, whereas synchronous operation means that the process runs only as a result of some other process being completed or handing off operation. A typical activity that might use a synchronous protocol would be a transmission of files from one point to another. As each transmission is received, a response is returned indicating success or the need to resend. Each successive transmission of data requires a response to the previous transmission before a new one can be initiated.
Client	The primary individual representing a household that is seeking housing counseling at an agency. Serves as the primary client of the household for resonding to demographic required data such as race, ethnicity, etc.
Client Management System (CMS) Vendor	The company that makes and markets the CMS product.

Terminology	Definition
Household	An individual group that receives housing counseling or education. For Example: A husband and wife or a brother and sister or three friends who are mortgagors under the same mortgage note or who are tenants under the same lease count as one household. Also, multiple individuals or families with the same problem or need that receive counseling together should be counted as an individual household. For example, three renting families who experience the same problem with the same landlord and receive counseling services from your agency together should be counted as one household, and the relevant data recorded in Sections 3-7 and 9.
Queue	A collection of items in which only the earliest added item may be accessed. Also known as "first-in, first-out" or FIFO.
Webthority	A Single Sign-On tool used within HUD's enterprise architecture to prevent unauthorized access to specific applications and internal network. Each user ID is associated with specific levels of access granted to it.

The following is a list of the abbreviations used in this document and the meaning of each.

Abbreviation	Definition
ARM	Agency Reporting Module
CMS	Client Management System
DTD	Document Type Definition
HECM	Home Equity Conversion Mortgage
HCS	Housing Counseling System
HUD	U.S. Department of Housing and Urban Development
JSP	JavaServer Pages
ICD	Interface Control Document
LHCA	Local Housing Counseling Agency
MSO	Multi-State Organization
NI	National Intermediary
POC	Points of Organizational Contact
OHC	HUD's Office of Housing Counseling
OMB	Office of Management and Budget
RI	Regional Intermediary
SFH	Single Family Housing
SHFA	State Housing Finance Agency
SOAP	Simple Object Access Protocol
WSDL	Web Services Definition Language
WUI	Web User Interface
XML	Extensible Markup Language

2.0 OVERVIEW

2.0 OVERVIEW

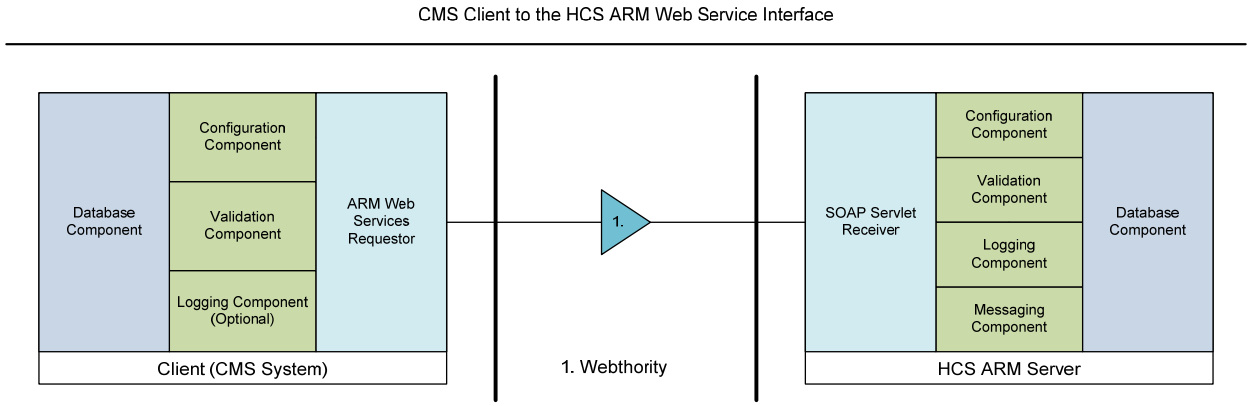
The following sections provide additional details on the functions of each subsystem, as well as input and output points, timing of processing through the HCS ARM interface and recovery parameters in the event of processing failure and/or complete system downtime.

2.1 System/Subsystem Description

The HCS ARM is a flexible and highly scalable data processing system based on Web Services technology Simple Object Access Protocol (SOAP). There are three major components to the ARM processing: the client side which is managed and performed independently by the client deployed at the CMS system; authentication at the enterprise architecture level; and the server side which is the actual “core” of the ARM processing and web service processing. Each of the three components is discussed in this section.

2.1.1 Justification for HCS ARM Web Services

The use of an architecture that is open enough for the system to provide both scalability and flexibility on the front end and back end best fulfills the HCS solution and goals. Web Services, specifically SOAP, offer the requisite architecture. The high-level architecture composition is depicted in the image below. The image shows the CMS client submitting data to the ARM Web Service interface through the Webthority service. The image also shows the major components responsible for the inner workings of the Client and Server side, which will be discussed in more detail later.



There are several reasons for using a Web Services approach on an Agency Report submission, such as:

- Integration between various systems can be achieved quickly, efficiently and in a cost effective manner by using a standardized format. It would be difficult to accomplish complete integration without Web Services and the flexibility it offers. Furthermore, integrating such vastly disparate systems would necessitate an expensive production phase to support all of the CMS systems.

- Provides standardization to the submission process and validation of data as required, further improving the quality of reporting.
- Will have less impact on the agency's existing systems.
- Shortens the development cycle and simplifies the maintenance period.
- Offers the ARM interface neutrality.
- Mature, industry proven technological solution.

2.1.2 Client

The client component is fairly independent, which means its processing does not impact the HCS ARM server side components at all. The client component will be responsible for extracting the data out of the agency's CMS, regardless if the system is vendor-provided or home grown. It will log the event itself and submit the data to the ARM Web Service Requestor. The ARM Web Service Requestor will then format the client side (CMS data) into an ARM SOAP service compliant message to be transmitted to the HCS ARM server after authentication for validation and processing.

2.1.3 Authentication

The Reporting Request must comply with HUD's authentication requirements. HCS ARM authenticates by providing the CMS ID, CMS password, agency ID, agency user ID and agency user password. Only a successfully authenticated request can reach the HCS ARM processing components. All communications with HUD are through the HTTP over Secure Socket Layer (SSL) protocol.

HCS login ID, HCS Agency ID, and password should be provided by the Housing Counseling Agency that is participating in the HUD Housing Counseling Program. The CMS ID and CMS Password will be provided by the ARM support team during CMS registration and approval.

2.1.4 Server

The ARM web service, as mentioned previously, is based on SOAP and utilizes the SOAP specification where the data is contained in the attachments or body of the message. Certain client platform technologies support SOAP with Attachments and some do not. It is up to the CMS's to determine which type of data submission they are capable of handling.

The server architecture is asynchronous in nature. The initial and immediate feedback sent to CMS's on data submission calls is an acknowledgement of receipt. It does not specify whether the submission was processed successfully or not. The CMS's are required to make another call at a later time to retrieve the processing status of their submission.

2.2 System/Subsystem Partitions and Functions

The following section describes the system/subsystem partitions and functions, documenting the traceability between the functional components and the data requirements for input and

processing. Also discussed is successful and failed logging of processed data messages through the submissions.

The high level system processing overview is below:

1. Authentication: Submission is sent over HTTPS (128 bit encryption) using the web services client (SOAP). Each individual submission needs to be authenticated. To perform a successful submission, a CMS ID, CMS password, a valid agency ID, HCS user ID and HCS user password are required.

2. HTTPS Traffic Redirected: All HTTPS traffic is redirected to the internal web services interface (SOAP) and received by the "CXFServlet"

3. Soap Structure and Header Validation Confirmation: Once the submission is transmitted through ARM, two levels of validation occur. The incoming SOAP request is validated to ensure the request is well formed and adheres to the WSDL definition. A unique Submission ID will be returned in the SOAP response. This Submission ID should be used in calls to getSubmissionInfo and getDetailedErrorMessage to retrieve the status of the submission within the following 30 calendar days. The second level of validation is described in Step 4.

4. Validation Notifications: During the second level of validation, submitted data is decompressed (if necessary), processed and validated according to the HCS ARM data format definition standard that is provided to every system and agency. The XML tags and the contained values will be validated per coded requirements and its respective attributes. If an error occurs as a result of the validation of the data, the error is recorded by the logging mechanism. The notification of these errors is asynchronous, meaning it may take a few seconds longer due to processing time.

5. Agency's Address Verification: Verification of Agency's Physical and/or Mailing address(es) is performed on-the-fly during the second level of validation. It is done via a program call to HUD Geocode Service Center. Verification is done by submitting the agency's Street address, City, State and ZIP information to HUD GSC; in case of a successful verification the returned values are: Street Address, City, FIPS State ID, ZIP-9, FIPS County ID, Longitude and Latitude. If verification was successful, these values override the original ones received from the XML submission from CMS.

6. Requesting and Receiving Submission Status: ARM provides a method to request the status of a submission. The request is called 'GetSubmissionInfo'. In order to use this method, the CMS must enable this functionality. This method is described in the ARM.WSDL file of the interface.

The 'getSubmssionInfo' method will return one of the following status messages:

Message	Description
NOT FOUND	Could not find the submission identified by the passed in submissionId
RECEIVED	Submission received but not yet processed
PROCESSING	Submission currently being processed

Message	Description
DONE	Submission processed without errors
ERROR	Submission could not be processed due to error(s). This status will also include the message(s) describing the error(s) found.

Additionally, ARM provides a method, 'getDetailedErrorMessage', to provide more details about a particular error.

7. Status Messages: Reports about the status of submissions can be viewed through the HCS system using the Report Submission Status page when proper user permissions are granted. This requires the user (agency) to have a valid HCS login and password. The user may also receive the status through the ARM Interface as described in step 6 above.

2.2.1 HCS ARM SOAP Interface - Processing XML

The submitted XML can be sent as an attachment part of a SOAP message to HCS ARM if the requesting CMS supports SOAP with Attachments. This method is called 'postSubmission'. The data submitted as an attachment is taken as input and as part of the SOAP message. The attachment can either be plain XML or it can be compressed using ZIP or GZIP format to improve transmission time. Here is how you specify your submission data encoding.

'postSubmission' method argument (as defined in arm.wsdl)	Value	Notes
'submissionDataEncoding'	TEXT/XML	This is the default value if no value is provided. It means the SOAP attachment is the XML databag contents.
'submissionDataEncoding'	ZIP	This means the SOAP attachment is compressed using ZIP format. It will be decompressed and then the databag processed as normal.
'submissionDataEncoding'	GZIP	This means the SOAP attachment is compressed using GZIP format. It will be decompressed and then the databag processed as normal.

2.2.2 Web Service SOAP Interface Server

ARM SOAP web services are developed using Apache CXF, an open source web services framework. The ARM interface is described by ARM.WSDL file, which is based on the Web

Services Definition Language (WSDL). ARM web service requests are validated and processed according to the WSDL definition and the XSD (XML Schema Definition) contained within the WSDL. The WSDL and its associated XSD file can be found in the Software Development Kit (SDK) available for download from the Client Management System web page of the HUD website. At the time of preparing this draft ICD, the ARM 5.0 SDK is in development.

The format of the data submitted via ARM's web service is described by the ARM databag XSDs. The XSD files can be found in the Software Development Kit (SDK) available for downloads from the Client Management System web page of the HUD website.
It is advised that all CMS's use the ARM databag XSDs as a reference to validate the format of their xml data submission. As in version 4.0, the databag is split up into multiple XSD files based on related datamap sections in version 5.0. Starting with the 2015 first quarter reporting only submisisons using ARM 5.0 will be accepted.

2.2.2.1 ARM 3.0 and 3.1 Databags

ARM_DATABAG_3_0.XSD and ARM_DATABAG_3_1.XSD were the two databag schema files for 3.0 and 3.1 respectively. They supported the ARM '*postSubmission'* web service method. Both versions defined the data submissions required of the CMS's as of January 1st, 2009. Starting with FY 2015 reporting the ARM Interface will no longer accept arm_databag_3_0.XSD and arm_databag_3_1.XSD.

2.2.2.2 ARM 4.0 Databags

The processing model for ARM 4.0 was significantly different than for versions 3.0 and 3.1. There were 4 different databags, one for each grouping of related data that an agency needs to submit. Starting with FY 2015 reporting the ARM Interface will no longer accept submissions using ARM 4.0.

2.2.2.3 ARM 5.0 Databags

The processing model for ARM 5.0 is similar to ARM 4.0. There are 4 different databags, one for each grouping of related data that an agency needs to submit as shown below along with the supported web service method. Starting with FY 2015 reporting the ARM Interface will only accept ARM 5.0 submissions.

Databag Name	Web Service Method	Datamap Sections
agency_profile_databag_5_0	postAgencyData	AgencyProfileData, Agency_Contacts, Agency_Contact
counselor_profile_databag_5_0	postCounselorData	Counselor_Profiles, Counselor_Profile, Counselor_Trainings, Counselor_Training, Counselor_Training_Courses, Counselor_Training_Course

Databag Name	Web Service Method	Datamap Sections
client_profile_databag_5_0	postClientData	Client_Profiles, Client_Profile
form_9902_databag_5_0	postForm9902Data	Form_9902, form9902Field, Group_Sessions, Group_Session, Group_Session_Attendee, Attendees, and Attendee

Additionally, there are interdependencies among these databags as outlined in the table below.

	Agency	Form 9902	Counselor	Client
Agency				
Form 9902 Group Session Attendee	X		X	
Counselor	X			
Client	X		X	
Group Session	X		X	
Attendee	X			

Naturally, all data sections are dependent on an Agency Profile which is manageable by specifying the Agency HCS Id and Fiscal Year Id in the *submissionHeader*. The other dependencies are managed based on submission order. So, the Counselor data needs to be submitted before the Client Profiles that reference the Counselor Profiles. The Group Session data needs to be submitted after the Counselor Profile data it references. The dependencies between Form 9902, Group Session, and Attendee are managed by the fact that they are all submitted together as part of the form_9902 databag.

2.2.3 Web Services SOAP Client

The purpose of the SOAP client is to extract data from a particular CMS and submit a SOAP message to the defined ARM interface. The client side will extract data from the CMS, which is developed by the CMS vendors according to the provided template, and encapsulate the data in the SOAP message. Depending on the type of data (agency, form 9902, counselor or client level data) the SOAP client determines the appropriate format and may provide pre-validation (depending on the vendor's decision).

The client will then push the Agency Reporting data to the ARM SOAP web service over HTTPS protocol. When passed through an authentication gateway, the data is validated and processed using the correct ARM post method.

2.2.4 HCS ARM Security

The HCS ARM Web Services reside behind the security of the SUN enterprise architecture. Following parameters are required to authenticate:

- HCS User ID and Password
  - HCS User ID and Password are case sensitive
  - HCS User Password must not be expired
- The HCS Agency ID
  - The Agency must have active status in HCS system in order to be able to submit data
- CMS System ID and Password
  - CMS System ID must be issued by HUD and is registered in the HCS system.
  - The CMS System ID may be discovered through the ARM web service mehod call, *getReference.* It may also be requested from ARM development team.
  - CMS Password is case sensitive.

The Java and .NET examples that demonstrate how to submit required authentication credentials when invoking the ARM service are included in the SDK.

2.2.5 Apache CXF

ARM SOAP web services are developed and deployed using Apache CXF. Apache CXF is an open source services framework that provides support for building both web services and web service clients. It is highly recommended that developers of Java-based clients consider using Apache CXF. For more information about Apache CFX please see http://cxf.apache.org.

2.2.6 HCS ARM Databag Validation

ARM validates all 5.0 databag transactions submitted via the *postAgencyData*, *postClientData*, *postCounselorData* and *postForm9902Data* web service methods. Any submissions that do not validate against the respective XML schema will be rejected and the client will receive a standard SOAP Fault indicating the validation rules(s) violated.

The following table contains a description of all XML Schema Definition (XSD) elements that can be used when creating valid XML documents based on one of the 5.0 databags. References to ARM 3.0 and 3.1 have been removed.

HCS ARM Databag Element - DTD	Description	Utilization
SubmissionData	This element is the outermost element and indicates a submission to submit data, which coincides with the methods called ARM 5.0: “postAgencyData”, “postClientData”, “postCounselorData” and “postForm9902Data”of the WebServices interface.	This element is defined in the 5.0 XSDs as SubmissionData.

HCS ARM Databag Element - DTD	Description	Utilization
AgencyProfileData	This element defines a section related to the Agency Profile data section only.	This element is defined in the agency_profile_databag_5_0 XSD as AgencyProfileData.
Agency_Contacts	This element defines a section related to Agency Contact data associated with the agency.	This element is defined in the agency_profile_databag_5_0 XSD as Agency_Contacts.
Counselor_Profiles	This element defines a section related to the Counselor Profile data section associated with the agency.	This element is defined in the counselor_profile_databag_5_0 XSD as Counselor_Profiles.
Counselor_Training_Courses	This element defines the course associated with Counselor_Trainings	This element is defined in the counselor_profile_databag_5_0 XSD as Counselor_Training_Courses
Counselor_Trainings	This element relates a Agency_Counselor and Counselor_Training_Courses to a Counselor_Training	This element is defined in the counselor_profile_databag_5_0 XSD as Counselor_Trainings
Group_Sessions	This element relates a Agency_Counselor and Attendees to a Group_Session	This element is defined in the form_9902_databag_5_0 XSD as Group_Sessions
Attendees	This element defines a data section related to Attendees of a Group_Session	This element is defined in the form_9902_databag_5_0 XSD as Attendees
Client_Profiles	This element defines a section related to the Client Profile data.	This element is defined in the client_profile_databag_5_0 XSD as Client_Profiles.

HCS ARM Databag Element - DTD	Description	Utilization
Form_9902s	This element defines a section related to the 9902 Form data	This element is defined in the form_9902_databag_5_0 XSD as Form_9902s.

The following table contains further details of the HCS ARM DATA format attributes as well as whether the attribute is required for a successful submission. The right-hand column of the table provides notes on how the field element attribute is interpreted by ARM and indicates how whether the particular attribute should be considered by the CMS.

Field Element Attributes	Attribute Description	Notes
maxLength	This attribute defines the maximum length of the element. The value should not exceed this definition; otherwise an error in validation occurs.	**Validation** If maximum field length is exceeded in the field value a validation error will occur.
minLength	This attribute defines the minimum length of the element. The value should not be less than this definition; otherwise an error in validation occurs.	**Validation** If minimum field length is not met in the field value a validation error will occur.
minOccurs	This attribute defines the minimum occurrence of datamap sections required.	If the minimum occurrence of the datamap section name is not met, it will produce a validation error.
maxOccurs	This attribute defines the maximum occurrence of the datamap sections allowed.	If the maximum occurrence of the datamap section is exceeded, it will produce a validation error.
activity_type_id;	This attribute designates the 9902 Form column the required type_id value is associated with it. (Refer to Section 4.0, Appendix A).	If the value of the activity type ID is not valid, it will produce a validation error.

In addition, the actual databag definition (format) of the HCS ARM is provided in the SDK.

2.2.6.1 ARM databag XSD Document

The ARM databag XSD structure is being provided in electronic format as a supplemental document to the ICD as the HCS ARM data format specification and is included in the SDK. The XSD structure can be easier to use than the databag structure and is more advantageous to the CMS developers for the following reasons:

- Easier to understand than the custom HCS ARM databag
- Technical standard
- Developer can create or regenerate the XML template without any data present
- Used to pre-validate the data in the XML prior to submitting to HUD. This will help to identify any errors prior to an actual submission.

Both the databag and XSD structure are updated with any changes to the ICD based on new enhancements to HCS ARM. The XSD structure is being provided as an .XSD file in the SDK.

2.2.7 ARM WSDL

The description of HCS ARM web services interface is provided by the descriptions in the ARM.WSDL file. This file contains the complete structure of requests and responses to and from the HCS ARM interface. For example, there are methods for submission and methods to request the status of a submission.

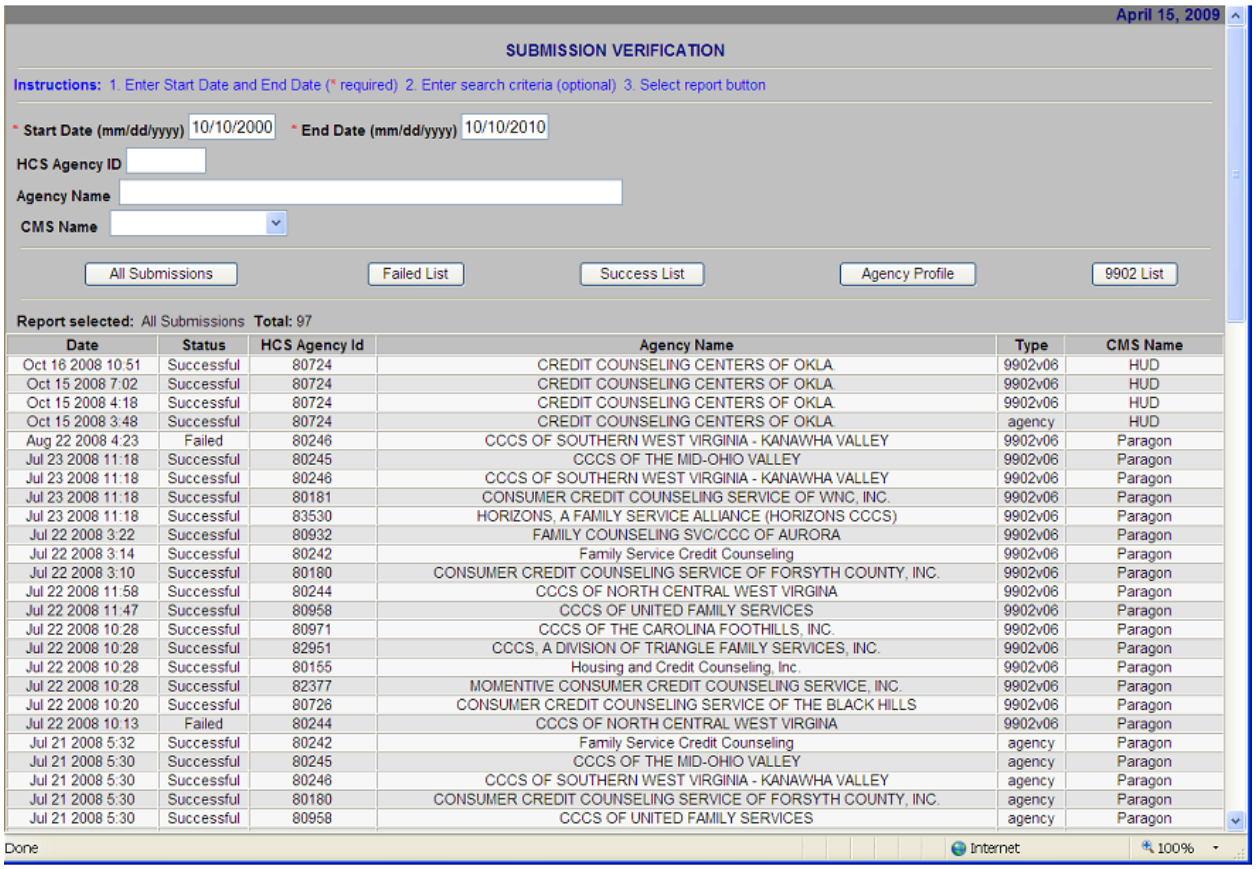
Refer to Section 8.0, Appendix E, of this document for the WSDL details.

2.2.8 HCS ARM Reporting

HCS provides two methods of viewing submission statuses.

- The first is the HCS ARM reporting interface accessible through a link on the HCS menu. However, the user must have the appropriate user permissions to be able to view the submission status. The purpose of the screens is to provide a view of the submissions by date and time, agency ID, type of submission, and status of submission (failure or successful). Each criterion can be selected individually or multiple criteria can be selected. The user interface is dynamically rendered as Java Server Pages (JSP).
- The second is HCS itself. All agency and 9902 data submission information directly impacts the data which is displayed throughout HCS. If a submission is successful in updating HCS, the updated data will be viewable and usable through HCS.

An example of the submission status screen is displayed in the following picture.



April 15, 2009

SUBMISSION VERIFICATION

Instructions: 1. Enter Start Date and End Date (* required) 2. Enter search criteria (optional) 3. Select report button

* Start Date (mm/dd/yyyy) 10/10/2000 * End Date (mm/dd/yyyy) 10/10/2010

HCS Agency ID

Agency Name

CMS Name

All Submissions | Failed List | Success List | Agency Profile | 9902 List

Report selected: All Submissions **Total:** 97

Date	Status	HCS Agency Id	Agency Name	Type	CMS Name
Oct 16 2008 10:51	Successful	80724	CREDIT COUNSELING CENTERS OF OKLA.	9902v06	HUD
Oct 15 2008 7:02	Successful	80724	CREDIT COUNSELING CENTERS OF OKLA.	9902v06	HUD
Oct 15 2008 4:18	Successful	80724	CREDIT COUNSELING CENTERS OF OKLA.	9902v06	HUD
Oct 15 2008 3:48	Successful	80724	CREDIT COUNSELING CENTERS OF OKLA.	agency	HUD
Aug 22 2008 4:23	Failed	80246	CCCS OF SOUTHERN WEST VIRGINIA - KANAWHA VALLEY	9902v06	Paragon
Jul 23 2008 11:18	Successful	80245	CCCS OF THE MID-OHIO VALLEY	9902v06	Paragon
Jul 23 2008 11:18	Successful	80246	CCCS OF SOUTHERN WEST VIRGINIA - KANAWHA VALLEY	9902v06	Paragon
Jul 23 2008 11:18	Successful	80181	CONSUMER CREDIT COUNSELING SERVICE OF WNC, INC.	9902v06	Paragon
Jul 23 2008 11:18	Successful	83530	HORIZONS, A FAMILY SERVICE ALLIANCE (HORIZONS CCCS)	9902v06	Paragon
Jul 22 2008 3:22	Successful	80932	FAMILY COUNSELING SVC/CCC OF AURORA	9902v06	Paragon
Jul 22 2008 3:14	Successful	80242	Family Service Credit Counseling	9902v06	Paragon
Jul 22 2008 3:10	Successful	80180	CONSUMER CREDIT COUNSELING SERVICE OF FORSYTH COUNTY, INC.	9902v06	Paragon
Jul 22 2008 11:58	Successful	80244	CCCS OF NORTH CENTRAL WEST VIRGINA	9902v06	Paragon
Jul 22 2008 11:47	Successful	80958	CCCS OF UNITED FAMILY SERVICES	9902v06	Paragon
Jul 22 2008 10:28	Successful	80971	CCCS OF THE CAROLINA FOOTHILLS, INC.	9902v06	Paragon
Jul 22 2008 10:28	Successful	82951	CCCS, A DIVISION OF TRIANGLE FAMILY SERVICES, INC.	9902v06	Paragon
Jul 22 2008 10:28	Successful	80155	Housing and Credit Counseling, Inc.	9902v06	Paragon
Jul 22 2008 10:28	Successful	82377	MOMENTIVE CONSUMER CREDIT COUNSELING SERVICE, INC.	9902v06	Paragon
Jul 22 2008 10:20	Successful	80726	CONSUMER CREDIT COUNSELING SERVICE OF THE BLACK HILLS	9902v06	Paragon
Jul 22 2008 10:13	Failed	80244	CCCS OF NORTH CENTRAL WEST VIRGINA	9902v06	Paragon
Jul 21 2008 5:32	Successful	80242	Family Service Credit Counseling	agency	Paragon
Jul 21 2008 5:30	Successful	80245	CCCS OF THE MID-OHIO VALLEY	agency	Paragon
Jul 21 2008 5:30	Successful	80246	CCCS OF SOUTHERN WEST VIRGINIA - KANAWHA VALLEY	agency	Paragon
Jul 21 2008 5:30	Successful	80180	CONSUMER CREDIT COUNSELING SERVICE OF FORSYTH COUNTY, INC.	agency	Paragon
Jul 21 2008 5:30	Successful	80958	CCCS OF UNITED FAMILY SERVICES	agency	Paragon

Done Internet 100%

2.2.9 HCS ARM Reference Data Service

The HCS uses reference data extensively in its submissions. All reference data can be retrieved through ARM's *getReference* or *getAllReferenceItems* mehods. Please note that these methods return an id, name and description for each reference value. The id is the value that should be used in the ARM submission whenever a reference value is required. The name and description are for information purposes. The following table lists all the reference data that is available through these operations.

Reference Data	Used in XML Tags	ID for getReference service	Comments
States	<Agency_Physical_State/> <Agency_Mailing_State/> <Contact_State/> <Client_State/> <Client_New_State/> <Attendee_State/>	0	The States used by HUD
Language	<Agency_Languagues/>:<Language/> < Counselor_Languages >:<Language/> <Client_Language_Spoken/>	1	The possible languages

Reference Data	Used in XML Tags	ID for getReference service	Comments
Race	<Client_Race_ID/> <Attendee_Race_ID>	3	The possible races of clients
Ethnicity	<Client_Ethnicity_ID/> <Attendee_Ethnicity_ID/>	4	Either Hispanic or Non-Hispanic from the HUD 9902 Form
Mortgage Type	<Client_Mortgage_Type/> <Client_Mortgage_Type_After/>	5	The possible mortgage types
Marital Status	<Client_Marital_Status/>	6	The possible marital statuses
Contact Type	<Contact_Type/>	7	The different contact types associated with an agency
CMS System ID /Name	<cmsVendorId>	10	Names and ID's of authorized CMS's that can submit to HCS ARM
Counsel Termination	<Client_Counseling_Termination/>	11	The different reasons for why counseling was terminated
Counsel Session Type	<Client_Counseling_Type/>	12	The different one on one counseling session types
Education	<Client_Highest_Educ_Grade/>	13	The possible education levels
Finance Type	<Client_Finance_Type_Before/> <Client_Finance_Type_After/>	14	The different financing types
Group Session Type	<group_session_type/>	15	The possible group session/workshops from the HUD 9902 Form
HUD Assistance	<Client_HUD_Assistance/>	18	The possible options HUD provides assistance
HUD Grant Type	< Group_Session_Attribute_HUD_Grant /> <Client_Attribute_HUD_Grant/>	19	The possible grant types HUD provides

Reference Data	Used in XML Tags	ID for getReference service	Comments
Income Level	<Client_Income_Level/> <Attendee_Income_Level/>	20	The 6 categories of AMI from the HUD 9902 Form. HUD publishes fiscal year AMI datasets annually at www.huduser.org/portal/datasets/il.html
Referred By	<Client_Referred_By/> <Attendee_Referred_By>	23	The possible ways a client was referred to agency
Contact Title	< Contact_Title />	25	The list of business titles used by HUD
Training Organization	< Counselor_Training_Org />	26	List of organizations providing counselor training
Training Sponsor	< Counselor_Training_Sponsor />	27	List of organizations providing counselor training sponsorship
Fiscal Year	<fiscalYearId/>	28	List of fiscal years and corresponding ID's.
Report Period	< Report_Period_Id />	29	The ID of HUD form 9902 report period.
Agency Counseling Methods	< Counseling_Method >	30	IDs and descriptions of different agency counseling methods
Purpose of Visit	<Client_Purpose_Of_Visit>	31	The possible reasons one receives counseling
Credit Score Source	<Client_Credit_Score_Source/>	32	The complete list of credit score sources
Credit Score Missing Reasons	<Client_No_Credit_Score_Reason/>	33	The complete list of reasons given for not providing a credit score.
Head of Household Types	<Client_Head_Of_Household_Type/>	34	The possible types for the head of the household.
Intake Loan Type	<Client_Intake_Loan_Type/>	35	The possible types of loans a client has.

Reference Data	Used in XML Tags	ID for getReference service	Comments
Counseling Service Types	<Service_Type/>	36	IDs and descriptions for the different services a counselor is trained to provide.
Impacts from Counseling	<Client_Impact/>	37	The possible impacts resulting from one-one-one counseling.
Activity Type	activity_type_id <Group_Session_Activity_Type/> <Client_Activity_Type/>	38	The possible HUD Funded activity types.
Limited English Proficiency	<Attendee_Limited_English_Proficiency/> <Client_Limited_English_Proficiency/>	39	The possible options for Limited English Proficiency of clients.
Rural Area Status	<Attendee_Rural_Area/> <Client_Rural_Area/>	40	The possible options for Rural Area Status of clients. Rural areas are defined by the U.S. Department of Agriculture at 7 CFR 3550.10. The USDA Income and Property Eligibility website for Single Family Housing programs can serve as a guide for determining whether or not a household lives in a rural area. See Appendix H for further details.

3.0 ADDITIONAL HCS ARM INFORMATION

3.0 ADDITIONAL HCS ARM INFORMATION

3.1 General Interface Information

- A failed submission needs to be resubmitted after the record is corrected on the CMS client side. A unique submission ID is required for every submission. The ID of failed submission cannot be reused. The expectation is to make the correction in a single place, on the client side, since HCS is a repository of data.

- HCS ARM interface will allow the CMS systems to send web services requests as an XML message to receive in return web services responses with submission status information. The request will need to contain submission_ID (unique for each submission), datetime, agency_hcs_id, cms_system_name.

- The HCS ARM interface will accept data for the HUD 9902 Form Version 2015.

3.2 Hours of Operation

- The HCS ARM Interface operates from 7:00 AM to 9:00 PM Eastern Standard Time Monday through Friday, excluding Federal Holidays. The queue processing ensures that processing or the acceptance of data does not stop even if the back-end database experiences an outage. Processing continues after the database connection is reestablished.

3.3 Technical Support

- If support is required due to the application errors, server unavailability or other technical issues, please contact HUD National Help Desk at 1-888-297-8689 or 202-708-3300 and choose option 9.

- Inform Help Desk specialist that you need assistance with application ARM (F11M) - Agency Reporting Module.

- Provide the following information:
  - Your name
  - Phone number
  - E-mail address
  - Name of your Client Management System (CMS)
  - Login ID - If you do not have Login ID, or it is not registered with ServiceDesk, they shall use the general contact record "HCS-ARM Customer"
  - Description of the issue

- Please ensure that the ticket is routed to the “HSGN - HCS - ARM” group.

- HUD National Help Desk hours of operation are 7:00 AM to 8:00 PM Eastern Standard Time Monday through Friday, excluding Federal Holidays.

4.0 APPENDIX A: XML TAG DESCRIPTIONS

4.0 APPENDIX A: XML TAG DESCRIPTIONS

This appendix outlines the tags to identify the submission to HCS ARM and is required to be part of the ARM SOAP message body. These values are assumed to be static; therefore the values will not change with the number of submissions.If there are any discrepancies between what is stated here and what is in the actual XSD, please defer to the XSD value. Please let the ARM development team know of these errors so we may keep the documentation accurate and up to date – we appreciate your help in this matter.

The following table details the XML specification for the ARM SOAP Header for submissions. Refer to the WSDL file in Section 8.0, Appendix E, of this document for the details of the required heading tags for "getSubmissionInfo" methods.

Data Elements Common Titles	Data Descriptions	XML Tag Name - Header	Value Required Y = Yes N = No
Submission Header			
Agency HCS ID	Agency ID from HCS system. This information is used for tracking and authentication. It is used to identify which agency profile is being updated.	agcHcsId	Y
Agency Name	Agency name used in HCS. This value is only used for reporting and submission logging purposes. The value will be converted in upper case while processed.	agcName	Y
Fiscal Year ID	Two-digit fiscal year id that represents the fiscal year that the data is being submitted for. Refer to reference group ID 28 for allowed values.	fiscalYearId	Y
CMS Vendor ID	The CMS system ID. The value is a numeric ID associated with your CMS System name in the HCS system. The value is only available when your CMS is registered with HUD. Important: The ID may be different in Pilot and Production instances of the system. Refer to reference group ID 10 for your CMS ID.	cmsVendorId	Y
CMS Password	The CMS password. The password is provided when your CMS is registered with HUD.	cmsPassword	Y

Submission Data	XML Header - It is the outer most XML tag which needs to be present in order for the system to recognize the “Submission” method.	SubmissionData	Y

All XML tags in the tables below must be included in a submission. Data identified in the “Value Required” column as "Y" are required for each successful submission. Data identified in the “Value Required” column as "N" are not required in a submission.

Submission Type – Agency Profile

Agency Profile is demographic and financial information that can be sent at any time. It must be accompanied by a HUD 9902 submission.

Agency Profile - Section Header & Datamap

The following table lists and describes the section header and HCS ARM datamap section names as found in an Agency Profile XML submission message.

HCS ARM Datamap Section Name - DTD	Description	Utilization
<AgencyProfileData/>	Section Header	This section is to be used when submitting the Agency Profile data.
<Agency_Contacts/>	This datamap section defines the Agency Contact data. Parent element for set of Agency Contacts.	Indicates a section of the submission related to the Agency’s Contact. *CMSs are required to send a minimum of three agency_contact sections, ‘HUD Contact’ contact type, ‘Office Manager' contact type and ‘Office Executive’ contact type. When only one person is available for HUD contact, the information shall be duplicated into other required contact types.*

HCS ARM Datamap Section Name - DTD	Description	Utilization
<Agency_Contact/>	Parent element for each agency contact. All element descriptions beginning with 'contact' are part of this parent element.	Important: There must be 3 contacts (one of each contact type) for a successful AgencyProfileData submission. If only one contact is present at the agency, its information needs to be repeated for all contact types. Only contact type IDs cannot be duplicated within one submission for one agency profile.
<Agency_Languages/>	This datamap section defines listing of languages that agency supports. Multiple agency languages are allowed. If the value is not available default it to 'English'.	Indicates a section of the submission related to the languages the agency supports. This is part of the AgencyProfileData section.

HCS ARM Datamap Section Name - DTD	Description	Utilization
<Agency_Counseling_Methods/>	This datamap section defines the Agency Counseling Methods data.	Section of the submission related to the Agency Counseling Methods. There are several different counseling methods a single agency can provide that are enumerated here. This is part of the AgencyProfileData section.

Agency Profile - Data Elements

The following table lists and describes the HCS ARM XML tag names with the respective “Value Required” attribute for all Agency Profile data elements.

Data Elements Common Titles	Data Descriptions	XML Tag Name - Header	Value Required Y = Yes N = No
Section Header: AgencyProfileData			

Agency EIN	Agency federal employee identification number or TIN (Tax Identification Number) used by IRS. Data must be presented in following format: '00-0000000'.	Agency_EIN	N
Reporting Month	Identifies the month data is reported. Reported month will indicate when agency profile data was submitted. Allowed only numeric values: 1 2 3 4 5 6 7 8 9 10 11 12 Note: The numeric value maps to the corresponding month. Example "1" will be used for January.	Reported_Month	Y
Agency's Dunn's Number	Agency Dunn & Bradstreet identification number. If provided, it must be 9 digits in length. If not provided the system defaults it to '000000000'.	Agency_DUN_Nbr	N
Agency Physical Address Line 1	Agency's current physical location address line #1.	Agency_Physical_Address1	Y
Agency Physical Address Line 2	Agency's current physical location address line #2 if applicable.	Agency_Physical_Address2	N
Agency Physical Address Line 3	Agency's current physical location address line #3 if applicable.	Agency_Physical_Address3	N
Agency Physical Address Line 4	Agency's current physical location address line #4 if applicable.	Agency_Physical_Address4	N
Agency Physical Address City	Agency's physical location address city.	Agency_Physical_City	Y

Agency Physical Address State	Agency's physical location address state. Refer to reference group ID 0 for allowed values.	Agency_Physical_State	Y
Agency Physical Address Zip Code	Agency's physical location address ZIP code. The ZIP code may be provided in short '00000' or full '00000-0000' format.	Agency_Physical_Zip	Y
Agency Mailing Address Line 1	Agency's current mailing location address line #1. . If not provided, it is populated with Agency_Physical_Address1 in data source.	Agency_Mailing_Address1	N
Agency Mailing Address Line 2	Agency's current mailing location address line #2 if applicable. If not provided, it is populated with Agency_Physical_Address2 in data source.	Agency_Mailing_Address2	N
Agency Mailing Address Line 3	Agency's current mailing location address line #3 if applicable. If not provided, it is populated with Agency_Physical_Address3 in data source.	Agency_Mailing_Address3	N
Agency Mailing Address Line 4	Agency's current mailing location address line #4 if applicable. If not provided, it is populated with Agency_Physical_Address4 in data source.	Agency_Mailing_Address4	N
Agency Mailing Address City	Agency's mailing location address city. . If not provided, it is populated with Agency_Physical_City in data source.	Agency_Mailing_City	N
Agency Mailing Address State	Agency's mailing location address state. If not provided, it is populated with Agency_Physical_State in data source. Refer to reference group ID 0 for allowed values.	Agency_Mailing_State	N
Agency Mailing Address Zip Code	Agency's mailing location address ZIP code. The ZIP code may be provided in short '00000' or full '00000-0000' format. If not provided, it is populated with Agency_Physical_Zip in data source.	Agency_Mailing_Zip	N
Agency Web Site	Agency's web site URL (address). The value must start with 'http://' or 'https://' to be properly displayed when published.	Agency_Website	N
Agency's Office Phone Number	Agency's phone number for public information and inquiries. The phone number shall contain 3 digit area code, 7 digit phone and where applicable up to 5 digit extension. Format value as '999-999-9999x99999'.	Agency_Phone_Nbr	Y
Agency Toll Free Phone Number	Agency's toll free number for public information and inquiries. The phone number shall contain 3 digit area code, 7 digit phone and where applicable up to 5 digit extension. Format value as '999-999-9999x99999'	Agency_Tollfree_Phone_Nbr	N
Agency's FAX number	Agency's fax number for public information and inquiries. The fax number shall contain 3 digit area code and 7 digit fax. Format value as '999-999-9999'	Agency_Fax_Nbr	N

Agency's Office Email Address	Agency's Email for public information and inquiries. Must be properly formatted as follows: xxx@xxx.xxx. When not available set value to 'N/A'.	Agency_Email	N
Agency Faith Base	Indicator that identifies the agency as a faith based organization. Allowed values: 'Y'/'N' (upper case)	Agency_Faith_Based_Ind	Y
Agency Colonias	Indicator of services provided to the Colonias population. Allowed values: 'Y'/'N' (upper case)	Agency_Colonias_Ind	Y
Agency Migrant Farm Workers	Indicator that the agency serves migrant farm workers. Allowed values: 'Y'/'N' (upper case)	Agency_Migrfarm_Worker_Ind	Y
Agency Counseling Budget	Identifies Agency's total Housing Counseling Budget for the support and operations of the agency. The data shall contain a numeric value only.	Agency_Counseling_Budget_Amount	Y
Agency Languages	Identifies languages the agency supports in counseling services. **Important:** Entries of language instances must be unique. Duplication of language ID's in individual entries will cause a submission error. It is expected that all agencies provide services in English. At least one entry for English language is expected for a complete AgencyProfileData submission. Refer to reference group ID 1 for allowed values. If the language is not available default it to English.	Parent element: Agency_Languages Child element: Language	Y
Agency Counseling Methods	One or more counseling methods that the agency offers. For each method the agency offers, there should be a corresponding entry. No duplicate entries are allowed. At least 1 type must be specified. Refer to reference group ID 30 for allowed values.	Parent element: Agency_Counseling_Methods Child element: Counseling_Method	Y
Parent Element: Agency_Contacts			

Parent Element: Agency_Contact All element descriptions beginning with 'contact' are part of this parent element. **Important:** There must be 3 contacts (one of each contact type) for a successful AgencyProfileData submission. If only one contact is present at the agency, its information needs to be repeated for all contact types. Only contact type IDs cannot be duplicated within one submission for one agency profile.			
Contact Type	Reference ID that identifies the agency personnel position such as: CEO, Office Director, Manager, Counselor, etc. Examples of the values are: **Numeric** **String** 2 Agency Senior Executive 3 Agency Manager 11 Agency Contact for HUD Use Refer to reference group ID 7 for allowed values.	Contact_Type	Y
Contact First Name	Agency personnel's first name.	Contact_Fname	Y
Contact Last Name	Agency personnel's last name.	Contact_Lname	Y
Contact Middle Name	Agency personnel's middle name. Middle initial is accepted.	Contact_Mname	N
Contact Title	Reference ID for Agency contact business title. Examples of the values are: **Numeric** **String** 1 'HUD Contact' 2 'Office Executive' 3 'Office Manager' Refer to reference group ID 25 for allowed values.	Contact_Title	Y
Contact Address1	Agency office's mailing street address line 1. This address will be used by HUD to send official business correspondence.	Contact_Address1	Y
Contact Address2	Agency office's mailing street address line 2. This address will be used by HUD to send official business correspondence.	Contact_Address2	N

Contact City	Agency office's mailing address city. This address will be used by HUD to send official business correspondence.	Contact_City	Y
Contact State	Agency office's mailing address state. This address will be used by HUD to send official business correspondence. Refer to reference group ID 0 for allowed values.	Contact_State	Y
Contact Zip Code	Agency office's mailing address zip code. This address will be used by HUD to send official business correspondence.	Contact_Zip	Y
Contact Phone Number	Agency contact phone. The phone number shall contain 3 digit area code and 7 digit phone. Format value as '999-999-9999.'	Contact_Phone_Nbr	Y
Contact Phone Extension	Agency contact Phone Extension up to 10 digits. Numeric value only.	Contact_Ext_Nbr	N
Contact Mobile Number	Agency contact Mobile Phone. The phone number shall contain 3 digit area code and 7 digit phone. Format value as '999-999-9999'.	Contact_Mobile_Nbr	N
Contact FAX number	Agency contact FAX number. The FAX number shall contain 3 digit area code and 7 digits FAX. Format value as '999-999-9999'.	Contact_Fax_Nbr	N
Contact Email	Agency contact email address for contacts and communications from HUD. This email address will be used by HUD to send official business communications. Must be properly formatted as follows: xxx@xxx.xxx If the email is not available provide value 'N/A'.	Contact_Email	Y

Submission Type – Counselor Profile

Agencies are required to submit their Counselor Profiles through their CMS. Counselor Profiles can be sent at anytime. If counselor profiles are not maintained and submitted to HCS, the 9902 and client data submissions may fail. If a 9902 or client data submission contains a reference to a counselor profile that has not previously been submitted to HCS, the submission will fail.

Counselor Profile - Section Header & Datamap

The following table lists and describes the section header and HCS ARM datamap section names as found in an Counselor Profile XML submission message.

HCS ARM Datamap Section Name - DTD	Description	Utilization
<Counselor_Profiles/>	This datamap section defines a section for Counselor Profile data associated with the agency.	Indicates a section of the submission related to the Counselor Profile.
<Counselor_Profile/>	This element contains information for each agency counselor.	Must be enclosed by <Counselor_Profiles/>
<Counselor_Languages/>	This datamap section defines listing of languages that a counselor speaks. Multiple languages are allowed. If the value is not available default it to 'English'.	Indicates a section of the submission related to the languages a counselor speaks. This is part of the CounselorProfile section.

HCS ARM Datamap Section Name - DTD	Description	Utilization
<Counselor_Service_Types/>	This datamap section defines the service types the counselor is certified to provide. Entries of service type ids must be unique. Duplication of service type ids will result in a submission error.	Indicates a section of the submission related to the services a counselor provides. This is part of the CounselorProfile section.
<Counselor_Trainings/>	This datamap section identifies the training sessions that a particular counselor attended. It includes counselor ID and session ID.	Indicates a section of the submission related to counselor and training.

HCS ARM Datamap Section Name - DTD	Description	Utilization
<Counselor_Training/>	This element contains the counselor and training session mapping. Links counselor training course with counselors who attended.	Must be enclosed by <Counselor_ Trainings />
<Counselor_Training_Courses/>	This datamap section identifies the training sessions.	Indicates a section of the submission related to counselor training.
<Counselor_Training_Course/>	This element contains information for each training course.	Must be enclosed by <Counselor_Training_Courses/>

Counselor Profile - Data Elements

The following table lists and describes the HCS ARM XML tag names with the respective “Value Required” attribute for all Counselor Profile data elements.

Parent Element: Counselor_Profiles
Parent Element: Counselor_Profile This element contains information for each agency counselor.

Data Elements Common Titles	Data Descriptions	XML Tag Name - Header	Value Required Y = Yes N = No
CMS Counselor ID	Counselor ID associated with the agency assigned by the CMS or agency to identify each counselor. The CMS/agency generated counselor ID is required to link counselors with clients.	CMS_Counselor_Id	Y
Counselor First Name	Agency counselor first name.	Counselor_Fname	Y
Counselor Middle Name	Agency counselor middle name. One character value is accepted.	Counselor_Mname	N
Counselor Last Name	Agency counselor last name.	Counselor_Lname	Y
Counselor Employment Start Date	The date the counselor started working for the agency. The year must be within the 19xx and 20xx range. The date must be formatted as MM-DD-YYYY	Counselor_Emp_Start_Date	Y
Counselor Employment End Date	The last date the counselor worked for the agency if counselor no longer employed	Counselor_Emp_End_Date	N
Counselor HUD ID	Placeholder for future release where counselors register themselves and are issued a HUD id that would uniquely identify them across all agencies for which they work.	Counselor_HUD_Id	N
Counselor Billing Rate	Rate counselor charges for services.	Counselor_Rate	N
Counselor Billing Method	Description of counselor billing mode. Allowed values are ‘Hourly’ or ‘Fixed’.	Counselor_Billing_Method	N
Counselor SSN	Full SSN for counselor. Useful in uniquely identifying a counselor across all agencies.	Counselor_SSN	Y
Counselor Phone	Counselor’s phone number.	Counselor_Phone	N

Counselor Email Address	Counselor's email address	Counselor_Email	N
Counselor Languages	Identifies languages the counselor speaks in counseling services. Important: Entries of language ids must be unique. Duplication of language ids in individual entries will cause a submission error. It is expected that all counselors provide services in English. Refer to reference group ID 1 for allowed values.	Parent element: Counselor_Languages Child element: Language	N
Counselor Service Types	Identifies service types the counselor is certified to provide. Entries of service type ids must be unique. Duplication of service type ids will result in a submission error. Refer to reference group ID 36 for allowed values.	Parent element: Counselor_Service_Types Child element: Service_Type	N
Parent Element: Counselor_Trainings			
Parent Element: Counselor_Training Parent element for counselor training. Links counselor training course with counselors who attended.			
CMS Counselor ID	CMS Counselor ID that attended this training. **Must match cms_counselor_id for a counselor_profile element in submission.**	CMS_Counselor_Id	Y
Counselor Training Certificate	Indicates whether the counselor received a certificate from the training course attended. Allowed Values: 'Y' - course completed and certificate received. 'N' - course completed, but certificate is not received.	Counselor_Training_Cert	Y
Counselor Training Course ID	Must match value supplied in a Counselor_Training_Course element of this submission.	Counselor_Training_Course_Id	Y

Parent Element: Counselor_Training_Courses			
Parent Element: Counselor_Training_Course This element contains information for every counselor training course.			
Counselor Training Course ID	Unique course id for this training course.	Counselor_Training_Course_Id	Y
Counselor Training Title	The title of the training course attended by the counselor.	Counselor_Training_Title	Y
Counselor Training Date	The date of the training course attended by the counselor. The year must be within the 19xx and 20xx range. If the value is not available default it to 'NULL'.	Counselor_Training_Date	Y
Counselor Training Organization	The organization that provided the training course the counselor attended. Refer to reference group ID 26 for allowed values.	Counselor_Training_Org	Y
Counselor Training Organization Other	The organization that provided the training course the counselor attended when it is not one of the predefined counselor training organizations. Not required by default, but is required if Other selected for Counselor_Training_Org.	Counselor_Training_Org_Other	N
Counselor Training Sponsor	The organization that sponsored the training course the counselor attended. Possible Values: Numeric String 1 N/A 2 HUD 3 Other Refer to reference group ID 27 for allowed values.	Counselor_Training_Sponsor	Y
Counselor Training Sponsor Other	The name of the organization that sponsored the training course if it is not one of the predefined counselor training sponsors..	Counselor_Training_Sponsor_Other	N

Counselor Training Duration	Length of training session.	Counselor_Training_Duration	N

Submission Type – HUD 9902 Form

Agencies are required to submit 9902 reports for each quarter of the fiscal year. 9902 reports are cumulative. This means that report for the first quarter contains only first quarter data. Report for second quarter contains summary data of first and second quarters. Report for third quarter contains summary data for first, second and third quarters. Report for fourth quarter is a whole year summary report.

9902 reports are expected to be submitted within timeframe established by HUD for every reporting period. If incorrect 9902 data is submitted, the correction can be made by resubmitting entire 9902 report. The 9902 submission may be rejected if conducted after the deadline for the reported quarter.

Form 9902 submission also includes group session and attendee profile data for those sessions that occurred during the reporting period. Attendees are group session/workshop education participants.

Form 9902 - Section Header & Datamap

The following table lists and describes the section header and HCS ARM datamap section names as found in an form 9902 XML submission message.

HCS ARM Datamap Section Name - DTD	Description	Utilization
<Form9902/>	This datamap section defines a section for form 9902 data associated with the agency.	Indicates a section of the submission related to the 9902 form.

HCS ARM Datamap Section Name - DTD	Description	Utilization
<Group_Sessions/>	Set of group sessions. A group session is an activity where two or more clients attend the same training/class regardless of registration process/walk-in.This datamap section This element relates an Agency counselor and Attendees to a Group_Session.	Indicates a section of the submission related to the group sessions provided by the agency.
<Group_Session/>	Represents a single group session.	Must be enclosed by <Group_Sessions> parent element. All group session elements are required if group session information is available.
<Group_Session_Attendees/>	Parent element for attendees who attended a group session.	Enclosing element for <Group_Session_Attendee/> elements.
<Group_Session_Attendee/>	This datamap section defines the attendees who attended a group session.	Indicates a section of the submission related to the attendees that attended group session.
<Attendees/>	This datamap section defines attendees of group sessions. For each Attendee, there should be a subsection starting with an Attendee element.	Indicates a section of the submission related to the attendee. Attendees are those who received educational services as a group session/workshop.

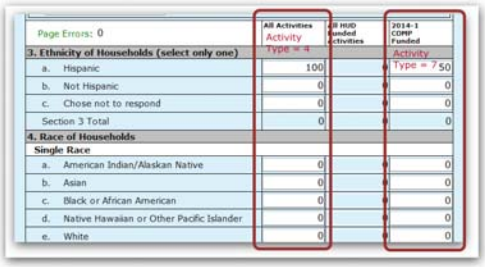
HCS ARM Datamap Section Name - DTD	Description	Utilization
<Attendee/>	This element contains information for each attendee.	Must be enclosed by <Attendees/>.

9902 Form – Data Elements

The following table lists and describes the HCS ARM XML tag names with the respective "Value Required" attribute. These fields represent the "All Counseling and Education Activities" and the "Counseling and Education Activities Attributed to HUD Housing Counseling Grant Funds – Actual, to date" columns of the Form 9902 Report. See activity_type_id description below.

Form 9902 Data Submission			
Parent Element: Form_9902			
Report Period ID	An integer ID of the report period. The report period corresponds to a quarter of the fiscal year. Refer to reference group ID 29 for allowed values.	Report_Period_Id	Y
Activity Type ID	The activity types that are reported on the 9902. This is a required attribute for all form_9902 child elements described below. **All Counseling and Education Activities:** Activity Type ID = 4. Reporting for this activity type will include all counseling activities, including those attributed to a HUD grant. **HUD Attributed Counseling and Education Activities:** Reporting for this activity type	activity_type_id	Y

includes counseling activities attributed to a HUD grant only. It will be a subset of the All Counseling and Education Activities.
For example, if an agency has a total of 100 counseling activities to report for 3a Hispanic, and 50 of those were funded by the 2014 Comprehensive Grant, then the number reported for 3a in the 9902 for activity type 4 for all activities would be 100, and the number reported for 3a for activity type 7 for the 2014 Comp grant would be 50.



Page Errors: 0	All Activities Activity Type = 4	All HUD Funded Activities	2014-1 CDMP Funded Activity Type = 7
3. Ethnicity of Households (select only one)			
a. Hispanic	100		50
b. Not Hispanic	0		0
c. Chose not to respond	0		0
Section 3 Total	0		0
4. Race of Households			
Single Race			
a. American Indian/Alaskan Native	0		0
b. Asian	0		0
c. Black or African American	0		0
d. Native Hawaiian or Other Pacific Islander	0		0
e. White	0		0

See the sample XML:


```
<?xml version="1.0" encoding="UTF-8"?>
<tns:SubmissionData
xsi:schemaLocation="http://gov.hud.arm/form
_9902_databag_5_0
form_9902_databag_5_0.xsd"
xmlns:tns="http://gov.hud.arm/form_9902_dat
abag_5_0"
xmlns:xsi="http://www.w3.org/2001/XMLSche
ma-instance">
  <tns:Form_9902>

<tns:Report_Period_Id>2</tns:Report_Period_I
d>

<tns:Ethnicity_Households_Counseling_Hispani
c
activity_type_id="4">100</tns:Ethnicity_House
holds_Counseling_Hispanic>

<tns:Ethnicity_Households_Counseling_Hispani
c
activity_type_id="7">50</tns:Ethnicity_Househ
olds_Counseling_Hispanic>
```


Refer to reference group ID 38 for allowed values. The same values are used for the **Group**

	Session Activity Type and the **Client Activity Type**. When reporting on activity types in the form_9902: • Activity Type 4 for All Counseling and Education Activities would be a cumulative count of all client and attendees of group sessions applicable to the reporting period, regardless of their group session or client activity type id. • When reporting on any activity type representing a specific HUD NOFA/Grant, provide a cumulative count of all client and attendees of group sessions applicable to the reporting period that have the same activity type id in the group session activity type or client activity type.		
Ethnicity of Households – Hispanic	Form 9902 Position: 3a. Ethnicity of Households – Hispanic Sum of households counseled with an ethnicity of "Hispanic".	Ethnicity_Households_Counseling_Hispanic	Y
Ethnicity of Households – Not Hispanic	Form 9902 Position: 3b. Ethnicity of Households – Not Hispanic Sum of households counseled with an ethnicity of "Not Hispanic".	Ethnicity_Households_Counseling_Non_Hispanic	Y
Ethnicity of Households – Chose not to respond	Form 9902 Position: 3c. Ethnicity of Households – Chose not to respond Sum of households counseled with an ethnicity of "Chose not to respond".	Ethnicity_Households_Counseling_No_Response	Y
Section 3 Total	Section 3 total of households counseled.	Section_3_Total	Y
Race of Households – Single Race – American Indian/Alaskan Native	Form 9902 Position: 4a. Race of Households – Single Race – American Indian/Alaskan Native Sum of households counseled who are "American Indian/Alaskan Native"	Race_Households_Counseling_American_Indian	Y

Race of Households – Single Race – Asian	Form 9902 Position: 4b. Race of Households – Single Race – Asian Sum of households counseled who are Asian”	Race_Households_Counseling_Asian	Y
Race of Households – Single Race – Black or African American	Form 9902 Position: 4c. Race of Households – Single Race – Black or African American Sum of households counseled who are “Black or African American”	Race_Households_Counseling_Black_African_American	Y
Race of Households – Single Race – Native Hawaiian or Other Pacific Islander	Form 9902 Position: 4d. Race of Households – Single Race – Native Hawaiian or Other Pacific Islander Sum of households counseled who are “Native Hawaiian or Other Pacific Islander”	Race_Households_Counseling_Pacific_Islanders	Y
Race of Households – Single Race – White	Form 9902 Position: 4e. Race of Households – Single Race – White Sum of households counseled who are “White”	Race_Households_Counseling_White	Y
Race of Households – Multi-Race – American Indian or Alaska Native and White	Form 9902 Position: 4f. Race of Households – Multi-Race – American Indian or Alaska Native and White Sum of clients counseled who are “American Indian or Alaska Native and White”	MultiRace_Households_Counseling_AMINDWHT	Y
Race of Households – Multi-Race – Asian and White	Form 9902 Position: 4g. Race of Households – Multi-Race – Asian and White Sum of clients counseled who are “Asian and White”	MultiRace_Households_Counseling_ASIANWHT	Y
Race of Households – Multi-Race – Black or African American and White	Form 9902 Position: 4h. Race of Households – Multi-Race – Black or African American and White Sum of clients counseled who are “Black or African American and White”	MultiRace_Households_Counseling_BLKWHT	Y
Race of Households – Multi-Race – American Indian or Alaska Native and Black or African American	Form 9902 Position: 4i. Race of Households – Multi-Race – American Indian or Alaska Native and Black or African American Sum of clients counseled who are “American Indian or Alaska Native and Black or African	MultiRace_Households_Counseling_AMRCINDBLK	Y

	American”		
Race of Households – Multi-Race – Other multiple race	Form 9902 Position: 4j. Race of Households – Multi-Race – Other multiple race Sum of clients counseled who are “Other multiple race”	MultiRace_Households_Counseling_OtherMLTRC	Y
Race of Households – Multi-Race – Chose not to respond	Form 9902 Position: 4k. Race of Households – Multi-Race – Chose not to respond Sum of clients counseled who are “Chose not to respond”	MultiRace_Households_Counseling_No_Response	Y
Section 4 Total	Section 4 total of households counseled.	Section_4_Total	Y
Income Levels – < 30% of Area Median Income (AMI)	Form 9902 Position: 5a. Income Levels – < 30% of Area Median Income (AMI) Sum of all clients with income levels “less than 30% of Area Median Income (AMI)”. Provide a value of 0 if no data. HUD publishes fiscal year AMI datasets annually at www.huduser.org/portal/datasets/il.html.	Less30_AMI_Level	Y
Income Levels – 30 - 49% of AMI	Form 9902 Position: 5b. Income Levels – 30 - 49% of AMI Sum of all clients with income levels “between 30 – 49% of AMI”. Provide a value of 0 if no data. HUD publishes fiscal year AMI datasets annually at www.huduser.org/portal/datasets/il.html.	a30_49_AMI_Level	Y
Income Levels – 50 - 79% of AMI	Form 9902 Position: 5c. Income Levels – 50 - 79% of AMI Sum of all clients with income levels “between 50 - 79% of AMI”. Provide a value of 0 if no data.	a50_79_AMI_Level	Y

	HUD publishes fiscal year AMI datasets annually at www.huduser.org/portal/datasets/il.html.		
Income Levels – 80 - 100% of AMI	Form 9902 Position: 5d. Income Levels – 80 - 100% of AMI Sum of all clients with income levels "between 80 – 100% of AMI". Provide a value of 0 if no data. HUD publishes fiscal year AMI datasets annually at www.huduser.org/portal/datasets/il.html.	a80_100_AMI_Level	Y
Income Levels > 100% AMI	Form 9902 Position: 5e. Income Levels > 100% AMI Sum of all clients with income levels "greater than 100% AMI". Provide a value of 0 if no data. HUD publishes fiscal year AMI datasets annually at www.huduser.org/portal/datasets/il.html.	Greater100_AMI_Level	Y
Income Levels > Chose not to respond	Form 9902 Position: 5f. Income Levels > Chose not to respond Sum of all clients with income levels of "Chose not to respond". Provide a value of 0 if no data.	AMI_No_Response	Y
Section 5 Total	Section 5 total of households counseled.	Section_5_Total	Y
Rural Area Status – Household lives in a rural area	Form 9902 Position: 6a. Rural Area Status – Household lives in a rural area Sum of households counseled that live in a "Rural Area". Rural areas are defined by the U.S. Department of Agriculture at 7 CFR 3550.10. The USDA Income and Property Eligibility website for Single Family Housing programs can serve as a guide for determining whether or not a household lives in a rural area. See Appendix H for further details on how to access the USDA	Household_Lives_In_Rural_Area	Y

	site. USDA determination of “Eligible” or “Address is located an eligible Area” maps to HUD 9902 “Household lives in a rural area”.		
Rural Area Status – Household does not live in a rural area	Form 9902 Position: 6b. Rural Area Status – Household does not live in a rural area Sum of households counseled that do not live in a “Rural Area”. Rural areas are defined by the U.S. Department of Agriculture at 7 CFR 3550.10. The USDA Income and Property Eligibility website for Single Family Housing programs can serve as a guide for determining whether or not a household lives in a rural area. See Appendix H for further details on how to access the USDA site. USDA determination of “Ineligible” or “Address in not located an Eligible Area” maps to HUD 9902 “Household does not live in a rural area”.	Household_Does_Not_Live_In_Rural_Area	Y
Rural Area Status – Chose not to respond	Form 9902 Position: 6c. Rural Area Status – Chose not to respond Sum of households counseled with a rural area status of “Chose not to respond”. Rural areas are defined by the U.S. Department of Agriculture at 7 CFR 3550.10. The USDA Income and Property Eligibility website for Single Family Housing programs can serve as a guide for determining whether or not a household lives in a rural area. See Appendix H for further details on how to access the USDA site. USDA determination of “Unable To Verify Address” or “unable to locate an exact address” maps to HUD 9902 “Chose not to respond”.	Rural_Area_No_Response	Y

Section 6 Total	Section 6 total of households counseled.	Section_6_Total	Y
Limited English Proficiency Status – Household is Limited English Proficient	Form 9902 Position: 7a. Limited English Proficiency Status – Household is Limited English Proficient Sum of households counseled that are "Limited English Proficient". Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English can be limited English proficient, or "LEP." These individuals may be entitled language assistance with respect to a particular type or service, benefit, or encounter. For additional information, see www.lep.gov.	Household_Is_Limited_English_Proficient	Y
Limited English Proficiency Status – Household is not Limited English Proficient	Form 9902 Position: 7b. Limited English Proficiency Status – Household is not Limited English Proficient Sum of households counseled that are not "Limited English Proficient". Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English can be limited English proficient, or "LEP." These individuals may be entitled language assistance with respect to a particular type or service, benefit, or encounter. For additional information, see www.lep.gov.	Household _Is_Not_Limited_English_Proficient	Y
Limited English Proficiency Status – Chose not to respond	Form 9902 Position: 7c. Limited English Proficiency Status – Chose not to respond Sum of households counseled with a Limited English Proficiency status of "Chose not to respond".	Limited_English_Proficient_No_Response	Y
Section 7 Total	Section 7 total of households counseled.	Section_7_Total	Y

Households Receiving Group Education, by Purpose - Completed financial literacy workshop, including home affordability, budgeting and understanding use of credit	Form 9902 Position: 8a. Households Receiving Group Education, by Purpose - Completed financial literacy workshop, including home affordability, budgeting and understanding use of credit Sum of households that completed a financial literacy workshop.	Group_Compl_Fin_Lit_Workshop	Y
Households Receiving Group Education, by Purpose - Completed predatory lending, loan scam or other fraud prevention workshop	Form 9902 Position: 8b. Households Receiving Group Education, by Purpose Completed predatory lending, loan scam or other fraud prevention workshop Sum of households that completed a predatory lending, loan scam or other fraud prevention workshop.	Group_Compl_Pred_Lend_Workshop	Y
Households Receiving Group Education, by Purpose - Completed fair housing workshop	Form 9902 Position: 8c Households Receiving Group Education, by Purpose - Completed fair housing workshop Sum of households that completed a fair housing workshop.	Group_Compl_Fair_Housing_Workshop	Y
Households Receiving Group Education, by Purpose - Completed homelessness prevention workshop	Form 9902 Position: 8d Households Receiving Group Education, by Purpose - Completed homelessness prevention workshop Sum of households that completed a homelessness prevention workshop.	Group_Compl_Homeless_Prev_Workshop	Y
Households Receiving Group Education, by Purpose - Completed rental workshop	Form 9902 Position: 8e Households Receiving Group Education, by Purpose - Completed rental workshop Sum of households that completed a rental workshop.	Group_Compl_Rental_Workshop	Y
Households Receiving Group Education, by Purpose - Completed pre-purchase homebuyer education workshop	Form 9902 Position: 8f Households Receiving Group Education, by Purpose - Completed pre-purchase homebuyer education workshop Sum of households that completed a pre-purchase homebuyer education workshop.	Group_Compl_PrePurchase_HomeBuyer_Workshop	Y
Households Receiving Group Education, by Purpose - Completed non-delinquency post-purchase workshop, including	Form 9902 Position: 8g Households Receiving Group Education, by Purpose - Completed non-delinquency post-purchase workshop, including home maintenance and/or financial management for homeowners Sum of households that completed a non-	Group_Compl_NonDelinqency_PostPurchase_Workshop	Y

home maintenance and/or financial management for homeowners	delinquency post-purchase workshop, including home maintenance and/or financial management for homeowners.		
Households Receiving Group Education, by Purpose - Completed resolving or preventing mortgage delinquency workshop	Form 9902 Position: 8h Households Receiving Group Education, by Purpose - Completed resolving or preventing mortgage delinquency workshop Sum of households that completed a resolving or preventing mortgage delinquency workshop.	Group_Compl_Resolv_Prevent_Mortg_Delinq_Workshop	Y
Households Receiving Group Education, by Purpose - Completed other workshop	Form 9902 Position: 8i Households Receiving Group Education, by Purpose - Completed other workshop Sum of households that completed another type of workshop.	Group_Compl_Other_Workshop	Y
Section 8 Total	Section 8 total of households counseled.	Section_8_Total	Y
Households Receiving One-on-One Counseling, by Purpose - Homeless Assistance	Form 9902 Position: 9a Households Receiving One-on-One Counseling, by Purpose - Homeless Assistance Sum of households received one-one-one homeless assistance counseling.	One_Homeless_Assistance_Counseling	Y
Households Receiving One-on-One Counseling, by Purpose - Rental Topics	Form 9902 Position: 9b Households Receiving One-on-One Counseling, by Purpose - Rental Topics Sum of households received one-one-one counseling on rental topics.	One_Rental_Topics_Counseling	Y
Households Receiving One-on-One Counseling, by Purpose - Prepurchase/Homebuying	Form 9902 Position: 9c Households Receiving One-on-One Counseling, by Purpose - Prepurchase/Homebuying Sum of households received one-one-one Prepurchase/Homebuying counseling.	One_PrePurchase_HomeBuying_Counseling	Y
Households Receiving One-on-One Counseling, by Purpose - Home Maintenance and Financial Management for Homeowners (Non-Delinquency Post-Purchase)	Form 9902 Position: 9d Households Receiving One-on-One Counseling, by Purpose - Home Maintenance and Financial Management for Homeowners (Non-Delinquency Post-Purchase) Sum of households received one-one-one home maintenance and financial management for homeowners (Non-Delinquency Post-Purchase) counseling.	One_Home_Maintenance_Fin_Management_Counseling	Y

Households Receiving One-on-One Counseling, by Purpose - Reverse Mortgage	Form 9902 Position: 9e Households Receiving One-on-One Counseling, by Purpose - Reverse Mortgage Sum of households received Reverse Mortgage counseling.	One_Reverse_Mortgage_Counseling	Y
Households Receiving One-on-One Counseling, by Purpose - Resolving or Preventing Mortgage Delinquency or Default	Form 9902 Position: 9f Households Receiving One-on-One Counseling, by Purpose - Resolving or Preventing Mortgage Delinquency or Default Sum of households received one-one-one resolving or preventing mortgage delinquency or default counseling.	One_Resolv_Prevent_Mortg_Delinq_Counseling	Y
Section 9 Total	Section 9 total of households counseled.	Section_9_Total	Y
Impact and Scope of One-on-One Counseling Services - Households that received one-on-one counseling that also received group education services	Form 9902 Position: 10a Impact and Scope of One-on-One Counseling Services - Households that received one-on-one counseling that also received group education services - Resolving or Preventing Mortgage Delinquency or Default Sum of households whose impact or scope of counseling included one-on-one counseling and group education services.	Impact_One_On_One_And_Group	Y
Impact and Scope of One-on-One Counseling Services - Households that received information on fair housing, fair lending and/or accessibility rights.	Form 9902 Position: 10b Impact and Scope of One-on-One Counseling Services - Households that received information on fair housing, fair lending and/or accessibility rights. Sum of households whose impact or scope of counseling included receiving information on fair housing, fair lending and/or accessibility rights	Impact_Received_Info_Fair_Housing	Y
Impact and Scope of One-on-One Counseling Services - Households for whom counselor developed a sustainable household budget through the provision of financial management and/or budget services.	Form 9902 Position: 10c Impact and Scope of One-on-One Counseling Services - Households for whom counselor developed a sustainable household budget through the provision of financial management and/or budget services. Sum of households whose impact or scope of counseling included counselor development of a sustainable household budget through the provision of financial management and/or budget services.	Impact_Developed_Sustainable_Budget	Y

Impact and Scope of One-on-One Counseling Services - Households that improved their financial capacity (e.g. increased discretionary income, decreased debt load, increased savings, increased credit score) after receiving Housing Counseling Services.	Form 9902 Position: 10d Impact and Scope of One-on-One Counseling Services - Households that improved their financial capacity (e.g. increased discretionary income, decreased debt load, increased savings, increased credit score) after receiving Housing Counseling Services. Sum of households whose impact or scope of counseling included improving their financial capacity (e.g. increased discretionary income, decreased debt load, increased savings, increased credit score) after receiving Housing Counseling Services.	Impact_Improved_Financial_Capacity	Y
Impact and Scope of One-on-One Counseling Services - Households that gained access to resources to help them improve their housing situation (e.g. down payment assistance, rental assistance, utility assistance, etc.) after receiving Housing Counseling Services.	Form 9902 Position: 10e Impact and Scope of One-on-One Counseling Services - Households that gained access to resources to help them improve their housing situation (e.g. down payment assistance, rental assistance, utility assistance, etc.) after receiving Housing Counseling Services Sum of households whose impact or scope of counseling included gaining access to resources to help improve their housing situation after receiving Housing Counseling services. (e.g. down payment assistance, rental assistance, utility assistance, etc.)	Impact_Gained_Access_Resources_Improve_Housing	Y
Impact and Scope of One-on-One Counseling Services - Households that gained access to non-housing resources (e.g. social service programs, legal services, public benefits such as Social Security or Medicaid, etc) after receiving Housing Counseling Services.	Form 9902 Position: 10f Impact and Scope of One-on-One Counseling Services - Households that gained access to non-housing resources (e.g. social service programs, legal services, public benefits such as Social Security or Medicaid, etc) after receiving Housing Counseling Services. Sum of households whose impact or scope of counseling included gaining access to non-housing resources after receiving Housing Counseling services. (e.g. social service programs, legal services, public benefits such as Social Security or Medicaid, etc)	Impact_Gained_Access_NonHousing_Resources	Y
Impact and Scope of One-on-One Counseling Services - Homeless or potentially homeless households that obtained temporary or permanent housing after	Form 9902 Position: 10g Impact and Scope of One-on-One Counseling Services - Homeless or potentially homeless households that obtained temporary or permanent housing after receiving Housing Counseling Services. Sum of homeless or potentially homeless households whose impact or scope of counseling included obtaining temporary or	Impact_Homeless_Obtained_Housing	Y

receiving Housing Counseling Services.	permanent housing after receiving Housing Counseling Services.		
Impact and Scope of One-on-One Counseling Services - Households that received rental counseling and avoided eviction after receiving Housing Counseling Services.	Form 9902 Position: 10h Impact and Scope of One-on-One Counseling Services - Households that received rental counseling and avoided eviction after receiving Housing Counseling Services. Sum of households whose impact or scope of rental counseling was to avoid eviction after receiving Housing Counseling Services.	Impact_Received_Rental_Counseling_Avoided_Eviction	Y
Impact and Scope of One-on-One Counseling Services - Households that received rental counseling and improved living conditions after receiving Housing Counseling Services.	Form 9902 Position: 10i Impact and Scope of One-on-One Counseling Services - Households that received rental counseling and improved living conditions after receiving Housing Counseling Services. Sum of households whose impact or scope of rental counseling included improving living conditions after receiving Housing Counseling Services.	Impact_Received_Rental_Counseling_Improved_Living_Conditions	Y
Impact and Scope of One-on-One Counseling Services - Households that received prepurchase/homebuying counseling and purchased housing after receiving Housing Counseling Services.	Form 9902 Position: 10j Impact and Scope of One-on-One Counseling Services - Households that received prepurchase/homebuying counseling and purchased housing after receiving Housing Counseling Services. Sum of households whose impact or scope of prepurchase/homebuying counseling included purchasing housing after receiving Housing Counseling Services.	Impact_Received_PrePurchase_Counseling_Purchased_Housing	Y
Impact and Scope of One-on-One Counseling Services - Households that received reverse mortgage counseling and obtained a Home Equity Conversion Mortgage (HECM) after receiving Housing Counseling Services.	Form 9902 Position: 10k Impact and Scope of One-on-One Counseling Services - Households that received reverse mortgage counseling and obtained a Home Equity Conversion Mortgage (HECM) after receiving Housing Counseling Services. Sum of households whose impact or scope of reverse mortgage counseling obtaining a Home Equity Conversion Mortgage (HECM) after receiving Housing Counseling Services.	Impact_Received_Reverse_Mortgage_Counseling_Obtained_HECM	Y
Impact and Scope of One-on-One Counseling Services - Households that	Form 9902 Position: 10l Impact and Scope of One-on-One Counseling Services - Households that received non-delinquency post-purchase counseling that were able to improve home	Impact_Received_NonDelinquency_PostPurchase_Counseling_Improve_Conditions_Affordability	Y

received non-delinquency post-purchase counseling that were able to improve home conditions or home affordability after receiving Housing Counseling Services.	conditions or home affordability after receiving Housing Counseling Services. Sum of households whose impact or scope of non-delinquency post-purchase counseling included improving home conditions or home affordability after receiving Housing Counseling Services.		
Impact and Scope of One-on-One Counseling Services - Households that prevented or resolved a mortgage default after receiving Housing Counseling Services.	Form 9902 Position: 10m Impact and Scope of One-on-One Counseling Services - Households that prevented or resolved a mortgage default after receiving Housing Counseling Services. Sum of households whose impact or scope of counseling included preventing or resolving a mortgage default after receiving Housing Counseling Services.	Impact_Prevented_Resolved_Mortgage_Default	Y
Section 10 Total	Section 10 total of households counseled.	Section_10_Total	Y
Parent Element: Group_Sessions Set of group sessions. A group session is an activity where two or more households attend the same training/class regardless of registration process/walk-in.			
Parent Element: Group_Session Represents a single group session. Must be enclosed by Group_Sessions> parent element. All group session elements are required if group session information is available.			
Group Session ID	A unique id for an instance of a group session conducted by a counseling agency. Agency/CMS shall generate unique id for group sessions.	Group_Session_Id	Y
Group Session Counselor ID	The CMS counselor ID of the counselor that taught or led the group session. It should match the CMS_Counselor_Id of a counselor previously submitted via postCounselorData.	Group_Session_Counselor_Id	Y
Group Session Title	The title of the group session conducted by a counseling agency.	Group_Session_Title	Y
Group Session Date	The day the group session was conducted or the first day of the group session if session spanned multiple days. The year must be within the 19xx and 20xx range. The date must be formatted as MM-DD-YYYY	Group_Session_Date	Y

Group Session Duration	The number of hours the group session took. If the group session spans multiple days, then the aggregate number of hours through all the days of the session.	Group_Session_Duration	Y
Group Session Type	The topic covered in the group session. This provides the data for calculating HUD 9902 group session numbers. Specified as a reference ID. Refer to reference group ID 15 for allowed values.	Group_Session_Type	Y
Group Session Attribute HUD Grant	Indicates the HUD Housing Counseling Grant that was used to fund the course. Example: 'Comprehensive', 'HECM', 'Training'. Specified as a reference ID. Refer to reference group ID 19 for allowed values.	Group_Session_Attribute_HUD_Grant	Y
Group Session Activity Type	Indicates the activity type for the HUD Housing Counseling NOFA and Grant that was used to fund the course. Specified as a reference ID. For each new grant that is awarded by HUD a new activity reference value will be published for that grant. This value will be specific to the year of the NOFA and the grant type. This value will be frequently updated - at least yearly. Depending on the specific agency's HUD funding they may need to submit for multiple activity types if they are funded with more than one grant at the same time. The total number of attendees should be reported on the form 9902. Refer to reference group ID 38 for allowed values.	Group_Session_Activity_Type	Y
Parent Element: Group_Session_Attendees Group Session Attendees: List of Attendees who attended a Group Session.			
Parent Element: Group_Session_Attendee Pertinent demographics collected for each such Attendee.			
Group Session Attendee ID	Unique identifier within this Agency for a group session attendee. Must correspond to an attendee_id in Attendee element of same submission.	Attendee_Id	Y

Group Session Attendee Fee Amount	Amount Attendee paid to attend group session. If the value is not available default it to '0'. Integer numeric value only.	Attendee_Fee_Amount	Y
Group Session Attendee Referred By	Indicates the source of reference the attendee learned about program. Refer to reference group ID 23 for allowed values.	Attendee_Referred_By	Y
Group Session Attendee First Time Home Buyer	Indicator of whether this Attendee is a first time home buyer before receiving education. Y/N Yes indicates the attendee has never previously owned a home. No indicates the attendee has previously owned a home.	Attendee_FirstTime_Home_Buyer	Y
Group Session Attendee Income Level	Attendee's Income Level at time of group session. Refer to reference group ID 20 for allowed values. HUD publishes fiscal year AMI datasets annually at www.huduser.org/portal/datasets/il.html.	Attendee_Income_Level	N
Group Session Attendee Address 1	Attendees first line of residence street address at time of group session.	Attendee_Address_1	N
Group Session Attendee Address 2	Attendee's second line of residence street address at time of group session.	Attendee_Address_2	N
Group Session Attendee City	Attendee's city of residence at time of group session.	Attendee_City	N
Group Session Attendee State	Attendee's state of residence at time of group session. Refer to reference group ID 0 for allowed values.	Attendee_State	N
Group Session Attendee Zip Code	Attendee's zip code of residence at time of group session.	Attendee_Zip_Code	N

Group Session Attendee Rural Area Status	Attendee's rural area status at time of group session. Refer to reference group ID 40 for allowed values. Rural areas are defined by the U.S. Department of Agriculture at 7 CFR 3550.10. The USDA Income and Property Eligibility website for Single Family Housing programs can serve as a guide for determining whether or not a household lives in a rural area. See Appendix H for further details on how to access the USDA site. USDA determination of "Eligible" or "Address is located an eligible Area" maps to HUD 9902 "Household lives in a rural area". USDA determination of "Ineligible" or "Address in not located an Eligible Area" maps to HUD 9902 "Household does not live in a rural area". USDA determination of "Unable To Verify Address" or "unable to locate an exact address" maps to HUD 9902 "Chose not to respond".	Attendee_Rural_Area	N
Group Session Attendee Limited English Proficiency	Attendee's limited English proficiency indicator at time of group session. Refer to reference group ID 39 for allowed values.	Attendee_Limited_English_Proficiency	N
Parent Element: Attendees			
Parent Element: Attendee			
Attendee ID	Unique id identifying this Attendee within Agency. Corresponds to an Attendee_Id in group_session element of same submission.	Attendee_Id	Y
Attendee First Name	Attendee of agency group session(s) First name.	Attendee_Fname	N

Attendee Last Name	Attendee of agency group session(s) last name.	Attendee_Lname	N
Attendee Middle Name	Attendee of agency group session(s) middle name or initial.	Attendee_Mname	N
Attendee Address1	Attendee of agency group session(s) most current street address line #1.	Attendee_Address_1	N
Attendee Address2	Attendee of agency group session(s) most current street address line #2.	Attendee_Address_2	N
Attendee City	Attendee of agency group session(s) most recent city.	Attendee_City	Y
Attendee State	Attendee of agency group session(s) most recent state. Refer to reference group ID 0 for allowed values.	Attendee_State	Y
Attendee Zip Code	Attendee of agency group session(s) most recent zip code.	Attendee_Zip_Code	Y
Attendee Rural Area Status	Attendee's rural area status as indicated on 9902 Section #6. Specified as a reference ID. Refer to reference group ID 40 for allowed values. Rural areas are defined by the U.S. Department of Agriculture at 7 CFR 3550.10. The USDA Income and Property Eligibility website for Single Family Housing programs can serve as a guide for determining whether or not a household lives in a rural area. See Appendix H for further details on how to access the USDA site. USDA determination of "Eligible" or "Address is located an eligible Area" maps to HUD 9902 "Household lives in a rural area". USDA determination of "Ineligible" or "Address in not located an Eligible Area" maps to HUD	Attendee_Rural_Area	Y

	9902 “Household does not live in a rural area”. USDA determination of “Unable To Verify Address” or “unable to locate an exact address” maps to HUD 9902 “Chose not to respond”.		
Attendee Limited English Proficiency	Attendee’s limited English proficiency as indicated on 9902 Section #7. Specified as a reference ID. Refer to reference group ID 39 for allowed values.	Attendee_Limited_English_Proficiency	Y
Attendee Race ID	Indicates the Attendee’s race as indicated on 9902 Section #3. Specified as a reference ID. Refer to reference group ID 3 for allowed values.	Attendee_Race_ID	Y
Attendee Ethnicity ID	Indicates the Attendee’s ethnicity as indicated on 9902 Section #4. Specified as a reference ID. Refer to reference group ID 4 for allowed values.	Attendee_Ethnicity_ID	Y
Attendee Income Level	Indicates the Attendee’s most current income level as indicated on 9902 Section #5. Specified as a reference ID. Refer to reference group ID 20 for allowed values.	Attendee_Income_Level	Y

Submission Type – Client Level Data

Client Level Data – Includes demographic and counseling data about the agency's client.

Client Level – Section Header & Datamap

The following table lists and describes the HCS ARM datamap section name as found in the Client Level Data portion of an XML submission message.

HCS ARM Datamap Section Name - DTD	Description	Utilization
<Client_Profiles/>	This datamap section defines Client Profile data. For each client profile, there should be a subsection starting with Client_Profile element.	Indicates a section of the submission related to the Client Profile. This section is all client detail information for 1 on 1 counseling sessions.
<Client_Profile/>	This element contains information for each client profile.	Must be enclosed by <Client_Profiles />

Client Level – Data Elements

The following table lists and describes the HCS ARM XML tag names with the respective "Value Required" attribute and dataset version comments for all Client Level data elements. Client level data pertains to clients who received one on one counseling.

Client Data Submission			
Parent Element: Client_Profiles			
Parent Element: Client_Profile Parent element defining a single client profile.			
Client ID Number	Unique identifier the CMS assigns to each client	Client_ID_Num	Y

Client Case Number	Agency's file number or case number assigned to each client for counseling services. Combination of Case Number and ID Number uniquely identify a client.	Client_Case_Num	Y
Client SSN1	Client's complete social security number. Format value as '123-45-6798'.	Client_SSN1	N
Client SSN2	Client's last 4 digits of their social security number.	Client_SSN2	N
Client First Name	Client's first name.	Client_First_Name	N
Client Last Name	Client's last name.	Client_Last_Name	N
Client Middle Name	Client's middle name or initial.	Client_Middle_Name	N
Client Street Address1	Prior to and at the beginning of counseling, client's physical street address line #1 of residence.	Client_Street_Address_1	N
Client Street Address2	Prior to and at the beginning of counseling, client's physical street address line #2 of residence.	Client_Street_Address_2	N
Client City	Prior to and at the beginning of counseling, client's physical address city of residence	Client_City	Y
Client State	Prior to and at the beginning of counseling, client's physical address state of residence. Specified as a reference ID representing state name. Refer to reference group ID 0 for allowed values.	Client_State	Y
Client Zip	Prior to and at the beginning of counseling, client's physical address zip code of residence.	Client_Zip	Y

Client New Street Address1	Client's street address line #1 after counseling if different from before and up to receiving counseling. If the address is not available or not changed after counseling default it to same as Client_Street_Address_1.	Client_New_Street_Address_1	N
Client New Street Address2	Client's street address line #2 after counseling if different from before and up to receiving counseling.	Client_New_Street_Address_2	N
Client New City	Client's City after counseling. Though, only the street address might have changed before and after counseling, specify City if street address has changed. If the address is not available or not changed after counseling default it to same as Client_City>	Client_New_City	N
Client New State	Client's State after counseling. Though, only the street address might have changed before and after counseling, specify State if street address has changed. If the address is not available or not changed after counseling default it to same as Client_State>. Refer to reference group ID 0 for allowed values.	Client_New_State	N
Client New Zip	Client's Zip Code after counseling. Though, only the street address might have changed before and after counseling, specify Zip Code if street address has changed. If the address is not available or not changed after counseling default it to same as Client_Zip.	Client_Zip	N
Client Phone Number	Client's home phone number. The phone number shall contain 3 digit area code, 7 digit phone and where applicable up to 5 digit extension. Format value as '999-999-9999x99999'	Client_Phone_Num	N
Client Mobile Phone Number	Client's cell phone number if applicable. If specified, must be properly formatted as follows: '999-999-9999'.	Client_Mobile_Phone_Num	N
Client Fax	Client's FAX phone number if applicable. If specified, must be properly formatted as follows: '999-999-9999'	Client_Fax	N
Client Email	Client's Email address if applicable. Must be properly formatted as follows: 'xxx@xxx.xxx'.	Client_Email	N

Client Family Size	The number of individuals that live in the client's residence. If the value is not available default it to '1' to represent a minimum family size.	Client_Family_Size	N
Client Gender	Client's gender. The Counselor is expected to make an effort in gender determination. Allowed values: 'F'/'M' (upper case)	Client_Gender	Y
Client Marital Status	Client's marital status. Specified as reference ID representing various choices including: Marry, Single, Divorce, etc. Refer to reference group ID 6 for allowed values.	Client_Marital_Status	Y
Client Race ID	Client's race as defined in 9902 form. The CMS assigns a reference ID associated with the appropriate descriptions. Refer to reference group ID 3 for allowed values.	Client_Race_ID	Y
Client Ethnicity ID	Client's ethnicity as defined in 9902 form. The CMS assigns a reference ID associated with the appropriate descriptions. Refer to reference group ID 4 for allowed values.	Client_Ethnicity_ID	Y
Client Head of Household Type	Indicates who is the head of household, i.e. Single Adult, Married with dependents, Two or more unrelated Adults, etc. Specified as a reference ID representing the various choices. Refer to reference group ID 34 for allowed values.	Client_Head_Of_Household_Type	Y
Client Household Gross Monthly Income	Household's gross monthly income from all household members. Integer numeric value only. Default value '0'	Client_Household_Gross_Monthly_Income	Y
Client Birth Date	Client's date of birth. Format data as 'MM-DD-YYYY'. The year must be within the 19xx and 20xx range.	Client_Birth_DT	N
Client Counselor ID	Identifies the counselor ID assigned to conduct counseling. Must correlate to an actual counselor previously submitted for the fiscal year to HCS.	Client_Counselor_ID	Y

Client Highest Education	Client's description indicating the highest level of completed education. Refer to reference group ID 13 for allowed values.	Client_Highest_Educ_Grade	Y
Client Farm Worker	Indicates if client is a migrant farm worker. Allowed values: 'Y'/ 'N' (upper case)	Client_Farm_Worker	Y
Client Rural Area Status	Client's rural area as defined in 9902 form. The CMS assigns a reference ID associated with the appropriate descriptions. Refer to reference group ID 40 for allowed values. Rural areas are defined by the U.S. Department of Agriculture at 7 CFR 3550.10. The USDA Income and Property Eligibility website for Single Family Housing programs can serve as a guide for determining whether or not a household lives in a rural area. See Appendix H for further details on how to access the USDA site. USDA determination of "Eligible" or "Address is located an eligible Area" maps to HUD 9902 "Household lives in a rural area". USDA determination of "Ineligible" or "Address in not located an Eligible Area" maps to HUD 9902 "Household does not live in a rural area". USDA determination of "Unable To Verify Address" or "unable to locate an exact address" maps to HUD 9902 "Chose not to respond".	Client_Rural_Area	Y
Client Limited English Proficiency	Client's limited English proficiency as defined in 9902 form. The CMS assigns a reference ID associated with the appropriate descriptions. Refer to reference group ID 39 for allowed values.	Client_Limited_English_Proficiency	Y

Client Colonias Resident	Indicates if client is a colonias resident. Allowed values: 'Y'/ 'N' (upper case)	Client_Colonias_Resident	Y
Client HUD Assistance	Type of additional HUD programs the client is receiving. If the value is not available default it to 'Other HUD Program'. Must select a single value from available reference items. Examples of Allowed Values: **Numeric** **String** 2 Rental Voucher 3 Place Based Rental Assistance 4 Home Ownership Voucher 5 Purchase REO Property 6 Down Payment Assistance 7 Other HUD Program 8 Not Applicable Refer to reference group ID 18 for allowed values. :	Client_HUD_Assistance	Y
Client Disabled	Indicator of whether or not the client is disabled Allowed values: 'Y'/ 'N' (upper case)	Client_Disabled	Y
Client Dependents Number	Describes number of individuals in the household that rely on client's support. If the value is not available default it to '0'.	Client_Dependents_Num	Y
Client Intake Date	Date of client's intake into the Agency's program. Format as 'MM-DD-YYYY'. The year must be within the 19xx and 20xx range.	Client_Intake_DT	Y
Client Counsel Session Date Start	Client Counsel Session Start Date and Time (date/time). If counseling session spans multiple days, record the first day of the session. Format as 'MM-DD-YYYY HH24:MI'. The year must be within the 19xx and 20xx range.	Client_Counsel_Start_Session_DateTime	Y
Client Counsel Session Date End	Client Counsel Session End Date and Time (date/time). If counseling session spans multiple days, record the last day of the session. Format as 'MM-DD-YYYY HH24:MI'. The year must be within the 19xx and 20xx range. If counseling ongoing, omit.	Client_Counsel_End_Session_DateTime	N

Client Language Spoken	The language spoken by the client If the value is not available default it to 'English'. Refer to reference group ID 1 for allowed values.	Client_Language_Spoken	Y
Client Session Duration	Client total session duration in minutes – all session minutes of the client per a single type of counseling.	Client_Session_Duration	Y
Client Counseling Type	The method by which the counseling session was conducted (Face to Face; Phone). A single value must be selected from below: Refer to reference group ID 12 for allowed values.	Client_Counseling_Type	Y
Client Counseling Termination	The reason for counseling termination. A single value must be selected. Refer to reference group ID 11 for allowed values. Use the code for "Ongoing" if the value is not known.	Client_Counseling_Termination	Y
Client Counseling Fee	The amount client paid for counseling service. The value represents only portion of the fee that was paid by the client if such is applicable. Only integer numeric value shall be provided. If the value is not available default it to '0'.	Client_Counseling_Fee	N
Client Attribute HUD Grant	Indicates the type of HUD Housing Counseling Grant that was used to service the counseling case. Refer to reference group ID 19 for allowed values. If the value is not available default it to 'N/A'.	Client_Attribute_HUD_Grant	Y
Client Grant Amount Used	Indicates how much HUD was billed for this particular client counseling. This enables HUD to track how their money is used.	Client_Grant_Amount_Used	N
Client HECM Certificate	Indicator of whether client received HUD issued HECM certificate or not. Allowed values: Y/ N If the value is not available default it to 'N'.	Client_HECM_Certificate	N

Client HECM Certificate Issue Date	If applicable, the date the HECM certificate takes effect. Format as 'MM-DD-YYYY'. The year must be within the 19xx and 20xx range.	Client_HECM_Certificate_Issue_Date	N
Client HECM Certificate expiration Date	If applicable, the date the HECM certificate expires. Format as 'MM-DD-YYYY'. The year must be within the 19xx and 20xx range.	Client_HECM_Certificate_Expiration_Date	N
Client HECM Certificate ID	The HECM certificate ID that was issued. The value must be numeric.	Client_HECM_Certificate_ID	N
Client Predatory Lending	Indicator of whether or not the client is a victim of predatory lending practices. Allowed values: Y/ N	Client_Predatory_Lending	N
Client Mortgage Type	Indicates the client's existing mortgage type before counseling. Refer to reference group ID 5 for allowed values. Use the code for "N/A" if the value is not known.	Client_Mortgage_Type	N
Client Mortgage Type After	Indicates the client's renegotiated mortgage type as a result from counseling. Refer to reference group ID 5 for allowed values. Use the code for "N/A" if the value is not known.	Client_Mortgage_Type_After	N
Client Finance Type Before	Indicates the type of financing the client had prior to counseling. Examples of Allowed Values: **Numeric** **String** 6 N/A 8 FHA 9 VA 10 Conventional 11 USDA Refer to reference group ID 14 for allowed values. If the value is not available default it to 'N/A'.	Client_Finance_Type_Before	N
Client Finance Type After	Indicates the type of financing the client had after end of counseling. Examples of Allowed Values: Numeric String 6 N/A	Client_Finance_Type_After	N

	8 FHA 9 VA 10 Conventional 11 USDA Refer to reference group ID 14 for allowed values. If the value is not available default it to 'N/A'.		
Client First Time Home Buyer	Indicator of whether the client is a first time home buyer before receiving counseling and is seeking to be a first time home buyer. Y/N Yes indicates the client has never previously owned a home. No indicates the client has previously owned a home.	Client_FirstTime_Home_Buyer	N
Client Discrimination Victim	Indicator of whether the client is a victim of discrimination in housing. Allowed values: Y/N Default value 'N'	Client_Discrimination_Victim	Y
Client Mortgage Closing Cost	Client's closing cost on the obtained mortgage Integer numeric value only.	Client_Mortgage_Closing_Cost	N
Client Mortgage Interest Rate	Client's mortgage interest rate. Numeric value with 3 digits after decimal point..	Client_Mortgage_Interest_Rate	N
Client Referred By	Indicates the source of reference from which the client learned about the counseling program. Examples of Allowed Values: **Numeric String** 2 HUD Outreach 3 Agency Outreach 4 Another Person 5 Lender 6 Another Agency 7 Real Estate Agent 8 Other 9 N/A Refer to reference group ID 23 for allowed values. If the value is not available default it to 'N/A'.	Client_Referred_By	Y
Client Sales Contract Signed	Indicates if the sales contract has been signed. Please specify a Date value (MM-DD- YYYY) The year must be within the 19xx and 20xx range.	Client_Sales_Contract_Signed	N

Client Job Duration	Length of time on job in months. If the value is not available default it to '0'.	Client_Job_Duration	Y
Client Credit Score	The client's FICO score from a major acceptable credit reporting agency.	Client_Credit_Score	N
Client Missing Credit Score Reason	If no credit score is provided, then specify the reason why. List of acceptable values specified in a reference table. Not required by default, but if the Client Credit Score is not provided, then this field must be provided. Refer to reference group ID 33 for allowed values.	Client_No_Credit_Score_Reason	N
Client Credit Score Source	If a credit score is provided, this field needs to be provided as well. It indicates the source of the credit score. List of acceptable values specified in a reference table. Not required by default, but if the Client Credit Score is provided, then this field must be provided. Refer to reference group ID 32 for allowed values.	Client_Credit_Score_Source	N
Client Household Debt	Monthly household liabilities. If the value is not available default it to '0'. Integer numeric value only.	Client_Household_Debt	Y
Client Mortgage Delinquency	Mortgage payments missed. Allowed values: Y/N Default value 'N'	Client_Mortgage_Deliquency	N
Client Loan Being Reported	Indicates which loan the client is providing information about – first or second. Possible values are "F" for First, "S" for Second or "N" for N/A. See <Client_Second_Loan_Exists>	Client_Loan_Being_Reported	N
Client Second Loan Exists	Indicates if client has a second loan. If a second loan exists, you would specify 'Y', otherwise 'N'. This is required if value of <Client_Loan_Being_Reported> is "First".	Client_Second_Loan_Exists	N
Client_Intake_Loan_Type	Indicates type of intake loan client has. Refer to reference group ID 35 for allowed values.	Client_Intake_Loan_Type	N
Client Intake Loan Is a Hybrid ARM Loan	If type of Client Intake Loan is ARM, then this field is required. Indicate here that it is a Hybrid ARM loan. Allowed values: Y/N	Client_Intake_Loan_Type_Is_Hybrid_ARM	N

Client Intake Loan Is an Option ARM Loan	If type of Client Intake Loan is ARM, then this field is required. Indicate here if it is Option ARM loan. Allowed values: Y/N	Client_Intake_Loan_Type_Is_Option_ARM	N
Client_Intake_Loan_Is_Interest_Only	Indicate if Client Intake Loan is an interest-only loan. Allowed values: Y/N	Client_Intake_Loan_Type_Is_Interest_Only	N
Client Intake Loan is FHA Or VA Insured Loan	Indicate if Client Intake Loan is FHA or VA Insured. Allowed values: Y/N	Client_Intake_Loan_Type_Is_FHA_Or_VA_Insured	N
Client Intake Loan is a Privately Held Loan	Indicates if client intake loan is privately held. Allowed values: Y/N	Client_Intake_Loan_Type_Is_Privately_Held	N
Client Intake Loan is Has Interest Rate Reset	Indicates if client intake loan has interest rate reset. Allowed values: Y/N	Client_Intake_Loan_Type_Has_Interest_Rate_Reset	N
Client Spouse First Name	Client's spouse first name.	Client_Spouse_First_Name	N
Client Spouse Last Name	Client spouse last name.	Client_Spouse_Last_Name	N
Client Spouse Middle Name	Client's spouse middle name or initial.	Client_Spouse_Middle_Name	N
Client Spouse SSN	Client's spouse complete social security number. Format value as '123-45-6798'.	Client_Spouse_SSN	N
Client Income Level	Indicates the client's Household income level compared to the Average Medium Income (AMI) for the area (as defined in 9902 Section #5). Refer to reference group ID 20 for allowed values. HUD publishes fiscal year AMI datasets annually at www.huduser.org/portal/datasets/il.html.	Client_Income_Level	Y

Client Purpose of Visit	Indicates the purpose of client counseling session. Specified as a reference id. Values include Homelessness Assistance, Rental Topics, Prepurchase/Homebuying, Home Maintenance and Financial Management, Reverse Mortgage, and Resolving/Preventing Mortgage Delinquency or Default. Refer to reference group ID 31 for allowed values.	Client_Purpose_Of_Visit	Y
Client Activity Type	Indicates whether the counseling session was funded with HUD grant funding. Uses the same activity types that are reported on the 9902. All Counseling and Education Activities: Activity=4 HUD Attributed Counseling and Education Activities: For each new grant that is awarded by HUD a new activity reference value will be published for that grant. This value will be specific to the year of the NOFA and the grant type. This value will be frequently updated - at least yearly. Depending on the specific agency's HUD funding they may need to submit HUD attributed 9902 data for different activity types if they are funded with more than one grant at the same time. Refer to reference group ID 38 for allowed values.	Client_Activity_Type	Y
Client Impacts	The impact and scope of one-on-one counseling services. Specified as a reference ID. Submit as many impacts that apply as a result of the counseling session. It is not expected or required that there be a reportable impact related to each counseling session. For some counseling sessions there may be multiple impacts. Refer to reference group ID 37 for allowed values.	Parent element: Client_Impacts Child element: Client_Impact	N

5.0 APPENDIX B: HCS ARM SOFTWARE DEVELOPMENT KIT (SDK)

5.0 APPENDIX B: HCS ARM SOFTWARE DEVELOPMENT KIT (SDK)

The software Development Kit (SDK) is a stand-alone mock of the HCS ARM interface. It is created to help developers building and testing client software. The SDK contains several JUnit tests that demonstrate how to connect to and invoke methods on the ARM Service. It also contains the latest versions of the ARM WSDL and XSD, and the ARM Databag XSDs.
The latest version of SDK may be downloaded from HUD – HCS website. Please look at the content box on the right side of the following webpage.

At the time of preparing this draft ICD, the ARM 5.0 SDK is in development.

http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/hcc/cms

6.0 APPENDIX C: HCS ARM URL TO SUBMIT DATA

6.0 APPENDIX C: HCS ARM URL TO SUBMIT DATA

The SOAP message should be submitted to **HSC ARM Pilot URL for testing of compliance with ARM interface specification**. The URL for the production HCS ARM will be delivered to the CMS system or Agency via email upon request.

The URL points to redirecting service which routs connection to appropriate HCS ARM server.

Once the CMS system or Agency is ready to perform submissions to HUD by agency, the URL for submission should be changed to the production HCS ARM **(test data must not be submitted to this URL)**.

The URL for the production HCS ARM will be delivered to the CMS system or Agency via email upon successful completion of interface tests and submitting of the Nondisclosure Agreement.

7.0 APPENDIX D: HCS ARM XSD DOCUMENT

7.0 APPENDIX D: HCS ARM XSD DOCUMENT

The reference XSD documents is provided as part of the Software Development Kit (SDK) and may be downloaded from HUD – HCS website. Please look at the content box on the right side of the following webpage.

http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/hcc/cms

At the time of preparing this draft ICD, the ARM 5.0 SDK is in development. The WSD files can be downloaded from:

http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/hcc/OHC_CMS1415a

8.0 APPENDIX E: HCS ARM WSDL FILE

8.0 APPENDIX E: HCS ARM WSDL DOCUMENT

The following section describes the currently available methods in the HCS ARM Web Services interface. If any changes are made as a result of the Pilot, the WSDL will be regenerated and republished.

The latest ARM.WSDL file is provided as part of the Software Development Kit (SDK) and may be downloaded from HUD – HCS website. Please look at the content box on the right side of the following webpage:

http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/hcc/cms

At the time of preparing this draft ICD, the ARM 5.0 SDK is in development. The WSDL files can be downloaded from:

http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/sfh/hcc/OHC_CMS1415a

9.0 APPENDIX F: HCS ARM ERROR CODES

9.0 APPENDIX F: HCS ARM ERROR CODES

Generic Errors:

1. An unexpected error occurred. Please contact ARM support and reference errorId: <N>

   The error is unknown. To report the issue, contact the HUD National Help Desk at (888) 297-8689 or (202) 708-3300 (choose option 9). Provide:
   - Your name
   - Phone number
   - E-mail address
   - Name of your Client Management System (CMS)
   - Login ID - If you do not have Login ID, or it is not registered with the HUD National Help Desk, they will use "HCS-ARM Customer" as the general contact record
   - Brief description of the issue.
   - Submission ID
   - Error ID.

2. Attempt to insert invalid <field_name> <id>. Please use getReference to find list of acceptable values.

   The submission contains an invalid value for the field name referenced in the error message. The CMS should use ARM's getReference or getAllReferenceItems mehods to obtain current acceptable values. Please note that these methods return an id, name and description for each reference value. The id is the value that should be used in the ARM submission whenever a reference value is required. The name and description are for information purposes.

3. Attempt to insert a duplicate <field_name>. Please remove duplicate and resubmit.

   The submission contains duplicate data for the field name referenced in the error message. The duplicate data should be identified and removed prior to resubmitting.

XML Validation Errors:

1. Bad databag namespace: <namespace>

   The submission contains a bad namespace. For a list of the valid databags see section 2.2.2.2 ARM 4.0 Databags.

2. There was a problem parsing your XML submission. Please review and correct these errors and resubmit. LINE: <LineNumber> : <message>

   The XML in the submission cannot be parsed. The line number where the error occurred and a description are provided in the error message. Reslove the parsing error and resubmit.

Submission Header Errors:

1. Unsupported data encoding value: <encoding>. Please provide one of the following values: TEXT/XML, ZIP, GZIP

2. Unable to open GZIP file - file or data must be corrupt.

3. Unable to read data from ZIP file or data is corrupt.

4. Unable to read data from GZIP file or data is corrupt. Original exception: <message>

5. Fiscal year [<NN>] is not an active fiscal year. Please correct and resubmit.

   The submission header contains an invalid value for the fiscal year. The CMS should use ARM's getReference or getAllReferenceItems mehods to obtain current acceptable values for the reporting period ID. Please note that these methods return an id, name and description for each reference value. The id is the value that should be used in the ARM submission whenever a reference value is required. The name and description are for information purposes.

6. CMS Name Id <N> is not approved for use on production system. Please retry with a valid cms name id.

   The submission header contains an invalid value for the CMS Name ID. The CMS should have obtained their production CMS ID from the ARM support team at the time the CMS was approved for posting to the production environment. Note: the CMS ID used for the pilot testing environment may not be the same as the CMS ID used for the production environment. The CMS should use ARM's getReference or getAllReferenceItems mehods to obtain current acceptable values for the CMS ID. Please note that these methods return an id, name and description for each reference value. The id is the value that should be used in the ARM submission whenever a reference value is required. The name and description are for information purposes. Alternatively the CMS can contact the HUD National Help Desk to obtain their CMS ID.

   HUD National Help Desk: (888) 297-8689 or (202) 708-3300 (choose option 9). Provide:
   - Your name
   - Phone number
   - E-mail address
   - Name of your Client Management System (CMS)
   - Login ID - If you do not have Login ID, or it is not registered with the HUD National Help Desk, they will use "HCS-ARM Customer" as the general contact record
   - Brief description of the issue.

Agency Profile submission errors:

1. Agency status must be either Approved, Inactive, Conditional, or Participating.

   The agency ID provided for the submission has a Terminated status. In order to submit the agency must have a status of Approved, Participating, Conditional, or Inactive. If the agency has a terminated status they should contact their HUD representative to resolve the agency status issue prior to resubmitting.

2. Agency not authorized to submit Agency Profile Data.

3. Agency not authorized to submit <submissionType>. where submissionType is one of: ("postCounselorData", "postClientData", "postForm9902Data")

4. No existing agency profile was found for agcHcsId [<N>] and fiscal_year [<NN>].

   The agency ID provided for the submission does not exist for the fiscal year the data is being submitted for. The agency ID should be confirmed prior to resubmitting. If the error continues after confirmation of the agency ID, contact the HUD National Help Desk for further support.

   HUD National Help Desk: (888) 297-8689 or (202) 708-3300 (choose option 9). Provide:
   - Your name
   - Phone number
   - E-mail address
   - Name of your Client Management System (CMS)
   - Login ID - If you do not have Login ID, or it is not registered with the HUD National Help Desk, they will use "HCS-ARM Customer" as the general contact record
   - Brief description of the issue.

5. No existing agency profile was found

6. Attempt to insert duplicate agency contact of type <N>. Please correct data and resubmit. Only 1 contact of each type allowed.

   The submission contains duplicate contacts for one agency contact type. Only one contact can be assigned to each contact type. Remove the duplicate and resubmit.

Counselor Profile submission errors:

1. Counselor id [<N>] is not found. Please ensure that this id matches the appropriate counselor id in the Counselor_Profile section.

   The data references a counselor ID that is not found in the submission. Any counselor ID that is referenced in the submission must have a matching counselor ID in the counselor profile section of the submission. For example, if a counselor ID is used in the group session our counselor training sections, the counselor must also be included in the counselor profile section.

2. Counselor training course id [<N>] associated with counselor id [<NN>] is not found. Please ensure that this id matches the appropriate counselor training course id in the Counselor_Training_Course section.

   The data references a counselor training course ID that is not found in the submission for the counselor ID referenced in the error message.

3. Counselor training course ids NN, NN1, NN2 were found in Counselor_Training_Course but were never referenced by a Counselor_Training

   The data contains counselor training course IDs that are are not found in the counselor training section. The IDs are referenced in the error message.

4. CounselorTrainingCourse.Counselor_Training_Org is 'TRAINING_ORG_OTHER' indicating an organization not known to HUD. You must provide a value for CounselorTrainingCourse. Counselor_Training_Org_Other.

   The organization for a counselor training course indicates the value **'TRAINING_ORG_OTHER'**. This indicates that it is an organization not known to HUD and unavaliable as a reference value for the counselor training course organization. In this case the field **CounselorTrainingCourse. Counselor_Training_Org_Other** is required. Provide the name of the organization profiding the training in the **CounselorTrainingCourse. Counselor_Training_Org_Other** field.

5. CounselorTrainingCourse. Counselor_Training_Sponsor is 'TRAINING_SPONSOR_OTHER' indicating an organization not known to HUD. You must provide a value for CounselorTrainingCourse. Counselor_Training_Sponsor_Other.

   The sponsor for a counselor training course indicates the value **'TRAINING_SPONSOR_OTHER'**. This indicates that it is an sponsor not known to HUD and unavaliable as a reference value for the counselor training course sponsor. In this case the field **CounselorTrainingCourse. Counselor_Training_Sponsor_Other** is required. Provide the name of the organization profiding the training in the **CounselorTrainingCourse. Counselor_Training_Sponsor_Other** field.

6. Duplicate found for cms counselor id [<N>]. Please ensure that these ids are unique in the Counselor_Profile section

   The submission contains a duplicate CMS Counselor ID in the Counselor Profile section. Each counselor should have a unique CMS Counselor ID.

7. Invalid CounselorProfile Counselor_Billing_Method Valid values are 'Hourly' and 'Fixed' - correct and resubmit.

   The submission contains an incorrect value for the counselor billing method in the Counselor Profile section. The method can be either Hourly or Fixed.

8. Duplicate found for cnslor training course id [<N>]. Please ensure that these ids are unique in the Counselor_Training_Course section

   The submission contains a duplicate Counselor Training Course ID in the Counselor Training Couse section. Each training course should have a unique Counselor Training Course ID.

Client Profile submission errors:

1. Client Counselor ID <N> does not correspond to an actual Counselor Profile. Please resubmit with valid Counselor ID

   The client data contains a Client Counselor ID that does not correspond to a CMS Counselor ID for a counselor profile that has been previously submitted to HCS. Verify that the client counselor ID is valid. If it is valid you will need to submit the counselor data to include the missing counselor prior to submitting the client data.

2. Invalid value for Purpose of Visit.

The client data contains an invalid value for Purpose of Visit. The CMS should use ARM's getReference or getAllReferenceItems mehods to obtain current acceptable values for the reporting period ID. Please note that these methods return an id, name and description for each reference value. The id is the value that should be used in the ARM submission whenever a reference value is required. The name and description are for information purposes.

Form 9902 submissions errors:

1. Attendee id [<N>] associated with group session id [<NN>] was not found. Please ensure that this id matches the appropriate attendee id in the Attendee section.

   The data for the group session identified in the message contains an attendee id value that is not included in the attendee section. Any attendee that is referenced in the group session section must be included in the attendee section.

2. Attendee ids <N1>,<N2>,.. were found in Attendee but were never referenced by a Group_Session

   The attendees ids identified in the message are included in the attendee section but are not referenced by a group session. If an attendee is included in the data, it must be refereced by a group session.

3. Duplicate found for attendee id [<N>]. Please ensure that these ids are unique in the Attendee section

   The submission contains a duplicate Attendee ID in the Attendee section. Each attendee should have a unique ID.

4. Group Session Counselor ID <N> does not correspond to an actual Counselor Profile. Please resubmit with valid Counselor ID.

   The group session data contains a Counselor ID that does not correspond to a CMS Counselor ID for a counselor profile that has been previously submitted to HCS. Verify that the client counselor ID is valid. If it is valid you will need to submit the counselor data to include the missing counselor prior to submitting the 9902 data.

5. Group session id [<N>] cannot be associated with duplicate attendee ids in list " <NN1, NN2, NN3>.

6. Group session id [<N>] cannot have duplicate attendees. Please remove duplicate and resubmit.

7. Invalid Reporting Period: [QtrN]; for current FY it may not be higher than current [QtrX]. Please correct and resubmit.

   The quarter provided for the reporting period provided is higher than the current quarter. Submissions for quarters later than the current quarter are not allowed.

8. No Form9902 found to associate with group session id [<N>].

9. Form_9902 Totals do not match: <message>. "Please correct and resubmit.

<message> is one or more of:

("Section Totals 3=4=5=6=7=(8+9);", "Section_3_Total;", "Section_4_Total;", "Section_5_Total;", "Section_6_Total;", "Section_7;", "Section_8_Total;", "Section_9_Total;", “Section_10_Total;")

The total values submitted for the 9902 sections must be equal using the formula: (Section 3 = Section 4 = Section 5 = Section 6 + Section 7 = (Section 8 + Section 9). The submission has been rejected because the total values of the 9902 data are not meeting this criteria.

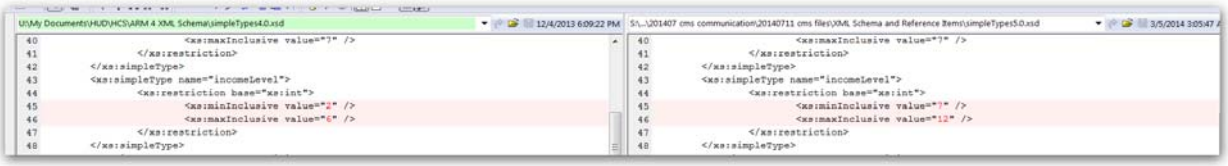
10.0 APPENDIX G: ARM 4.0 V13.2.5.0 CHANGE COMPARISON TO ARM 5.0

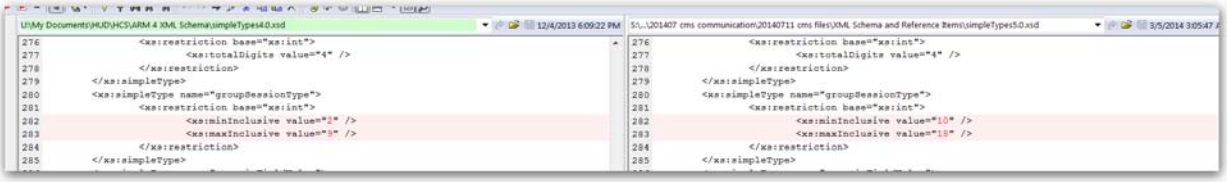
10.0 APPENDIX G: ARM 4.0 V13.2.5.0 CHANGE COMPARISON TO ARM 5.0

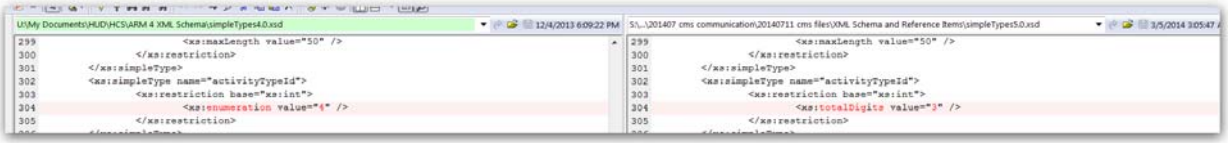
(Left side ARM 4.0 V13.2.5.0/Right side to be ARM 5.0 V14.5.0.0)

simpleTypes.xsd

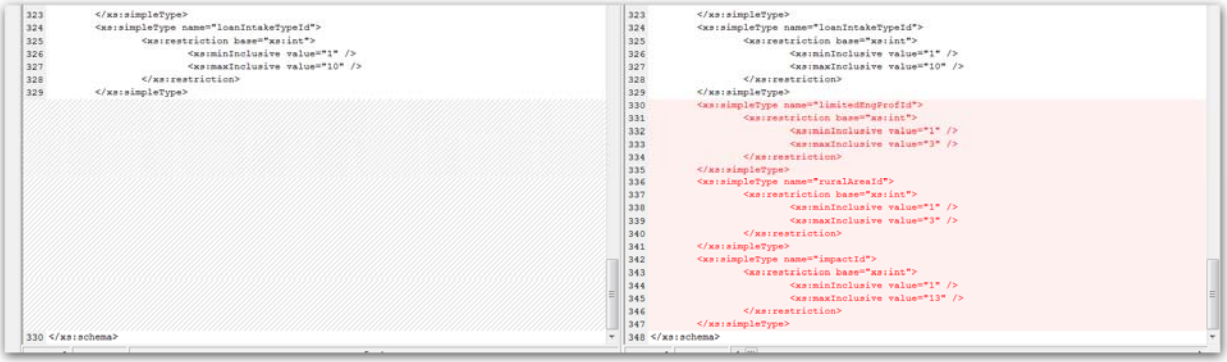
1. Changed allowed values for:
    - incomeLevel
    - groupSessionType
    - activityTypeId



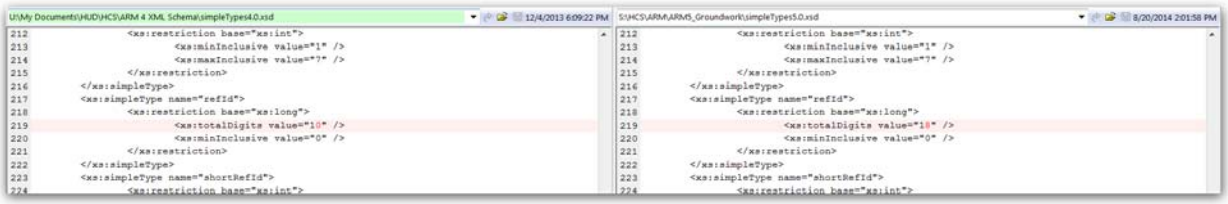




2. Added
    - limitedEngProfId
    - ruralAreaId
    - impactId

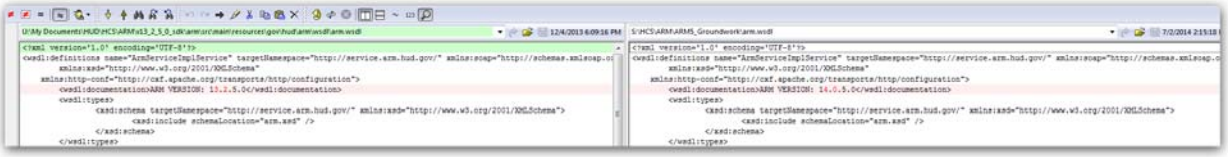


3. Revised
    - RefId – to change the max total digits from 10 to 18.



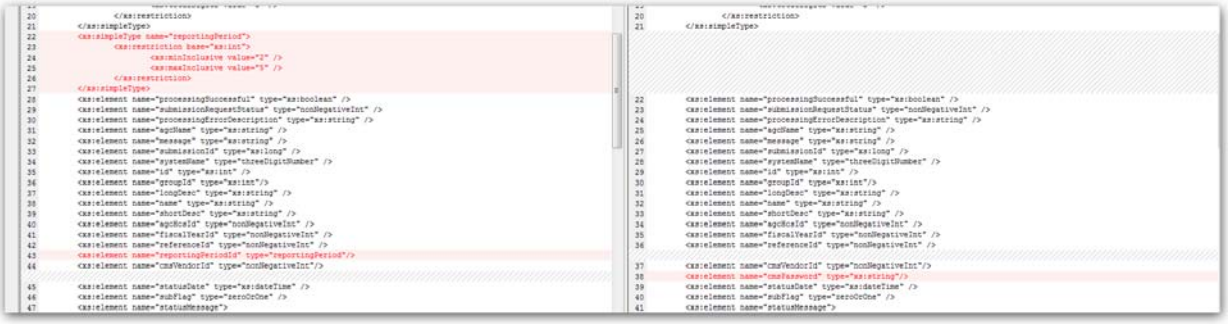
ARM.WSDL:

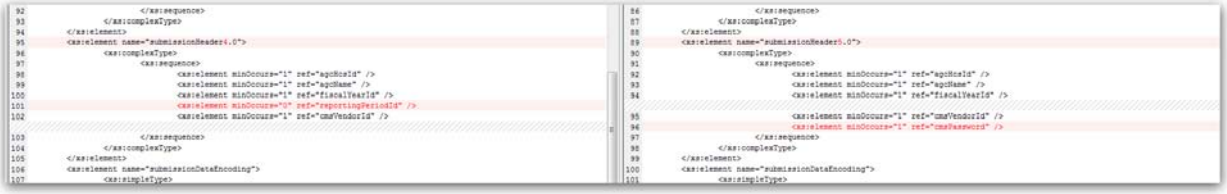
1. Version # change to 14.0.5.0

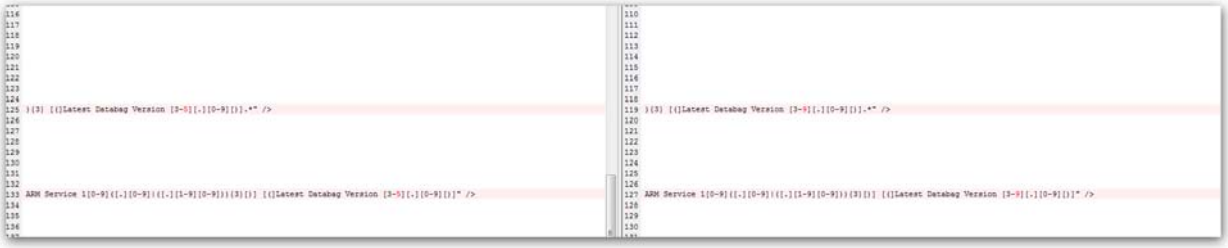


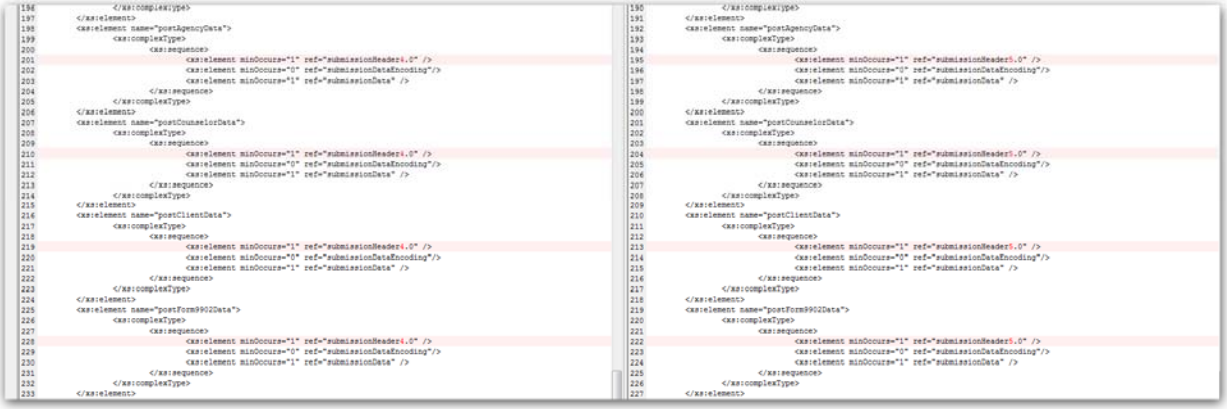
ARM.XSD:

1. ReportingPeriod removed.
2. CMS Password added.
3. Add Allowable numbers to databag version format.
4. Change ARM 4 to ARM 5.



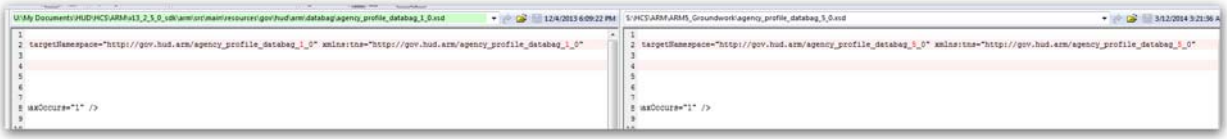


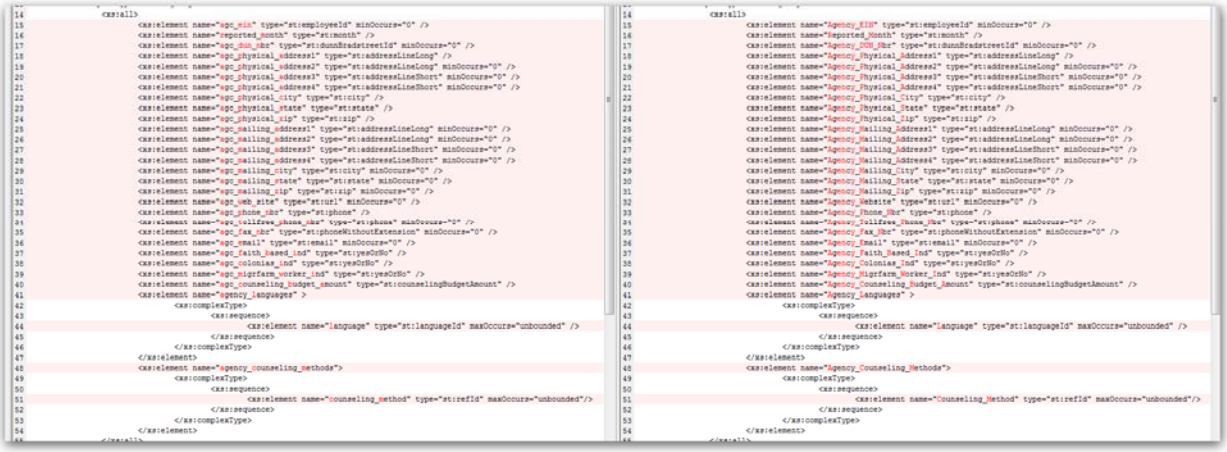




agency_profile_databag:

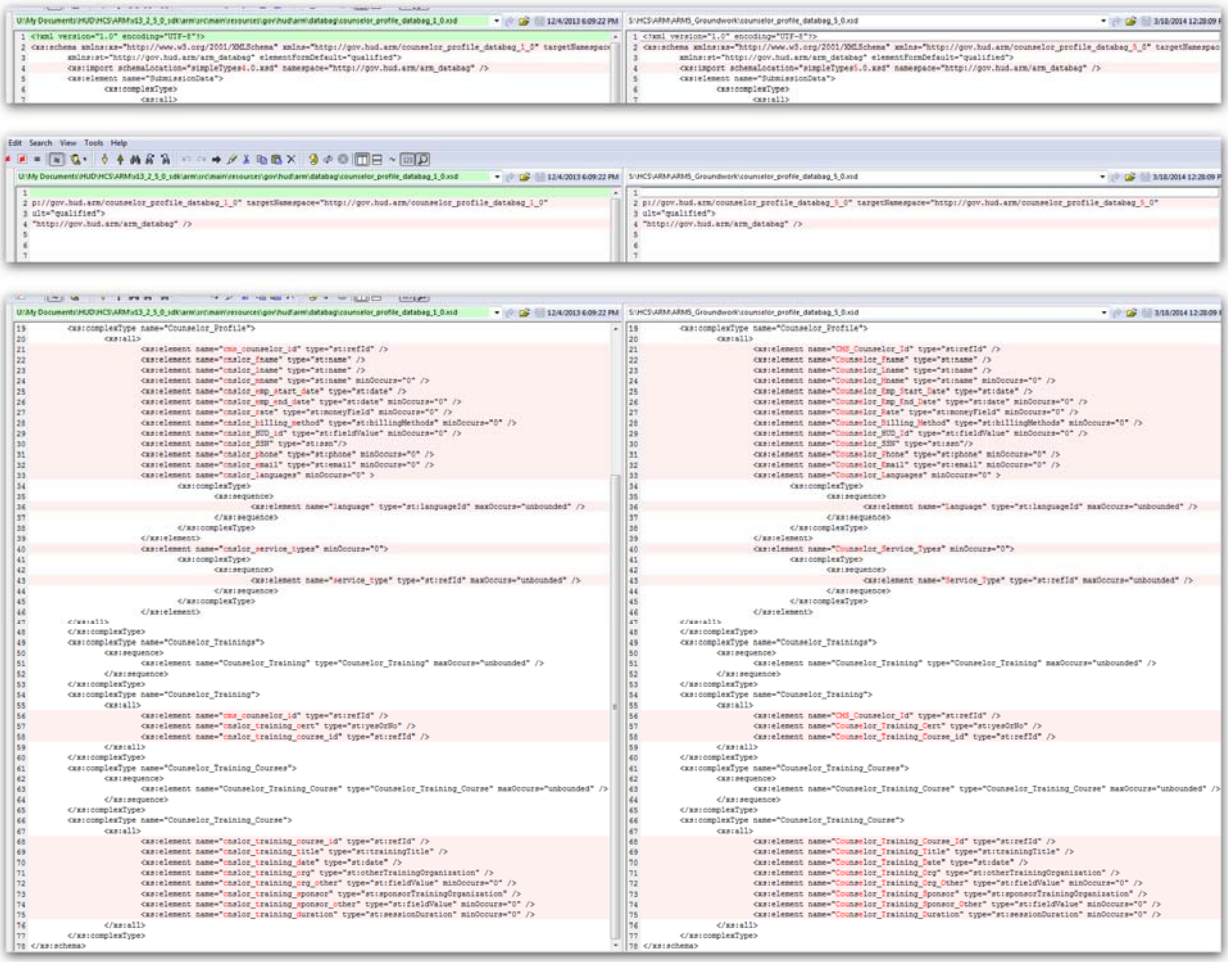
1. xsd file name change from agency_profile_databag_1_0.xsd to agency_profile_databag_5_0.xsd
2. simpleTypes4.0.xsd file name change to simpleTypes5.0.xsd
3. Update to element names throughout to improve naming consistency.





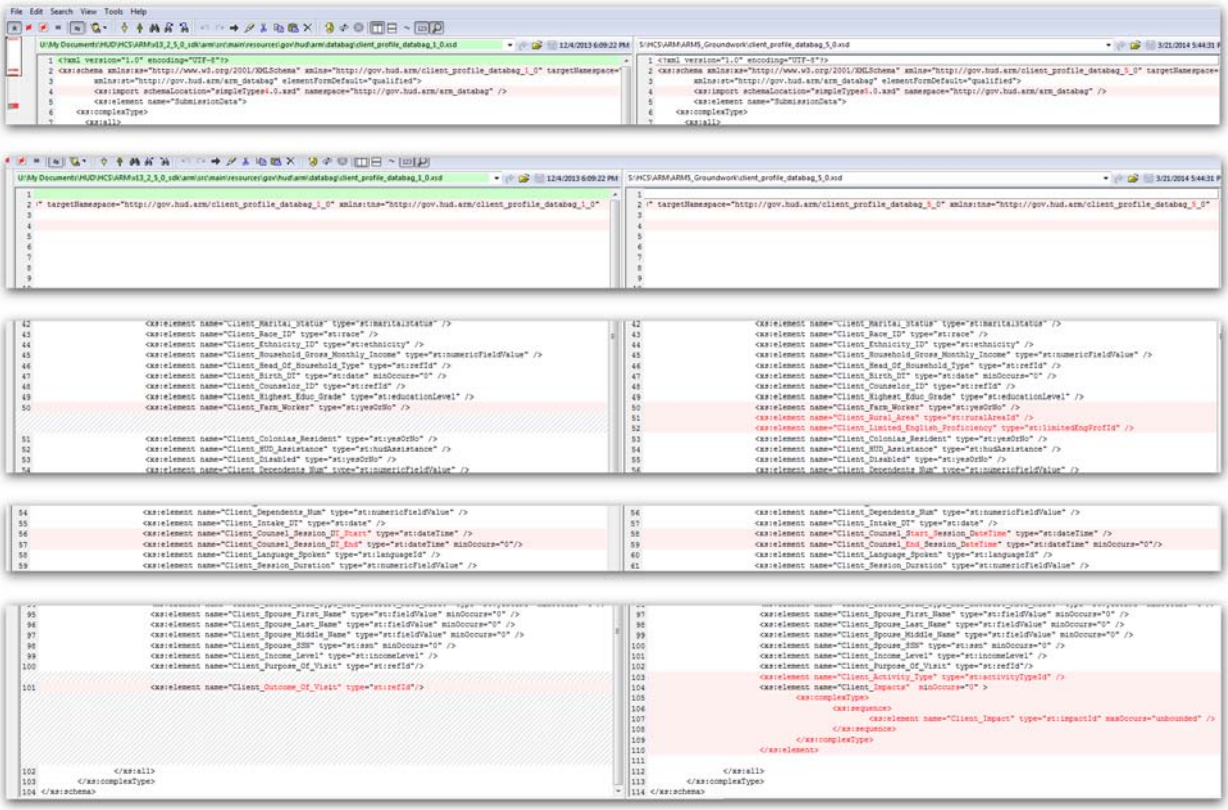
counselor_profile_databag:

1. xsd file name change from counselor_profile_databag_1_0.xsd to counselor_profile_databag_5_0.xsd.
2. simpleTypes4.0.xsd file name change to simpleTypes5.0.xsd.
3. Update to element names throughout to improve naming consistency.



client_profile_databag:

1. xsd file name change from counselor_profile_databag_1_0.xsd to counselor_profile_databag_5_0.xsd.
2. simpleTypes4.0.xsd file name change to simpleTypes5.0.xsd.
3. Client_Rural_Area added.
4. Client_Limited_English_Proficiency added.
5. Client_Activity_Type added.
6. Client_Impacts added.
7. Client_Outcome_Of_Visit removed.
8. Update to element names throughout to improve naming consistency.



form_9902_databag: (Top ARM 4.0 V13.2.5.0/Bottom to be ARM 5.0 V14.5.0.0)

1. xsd file name change from form_9902_databag_1_0.xsd to form_9902_databag_5_0.xsd
2. simpleTypes4.0.xsd file name change to simpleTypes5.0.xsd.
3. Under Form_9902: to allow for multiple activity types for each element: changed xs:all to xs:sequence to specify that the child elements must appear in a sequence. Set the maxOccurs attribute to “unbounded”.
4. Element name changes from client to Household.
5. Update element names for section 5 – Income Level per new options added.
6. Removed old section 6 element names for completed workshop options.
7. Added new section 6 element names for Rural Area Status.
8. Removed old sections 7a-7e for counseling purpose and outcome options.
9. Added new section 7 for Limited English Proficiency.
10. Added new section 8 for completed workshop options.
11. Added new section 9 for one-one-one counseling purpose options.
12. Added new section 10 for impacts of counseling.
13. Added Group_Session_Activity Type.
14. Added Attendee_Rural_Area.
15. Added Attendee_Limited_English_Proficiency.
16. Update to element names throughout to improve naming consistency.

U:\My Documents\HUD\HCS\ARM\v13_2_5_0_sdk\arm\src\main\resources\gov\hud\arm\databag\form_9902_databag_1_0.xsd

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns="http://gov.hud.arm/form_9902_databag_1_0" targetNamespace="http://gov.hud.arm/form_9902_databag_1_0"
3         xmlns:st="http://gov.hud.arm/arm_databag" elementFormDefault="qualified">
4         <xs:import schemaLocation="simpleTypes4.0.xsd" namespace="http://gov.hud.arm/arm_databag" />
5         <xs:element name="SubmissionData">
6                 <xs:complexType>
7                         <xs:all>
8                                 <xs:element name="Group_Sessions" type="Group_Sessions" minOccurs="0" />
9                                 <xs:element name="Form_9902" type="Form_9902" minOccurs="0" maxOccurs="1" />
```

13 Exact

S:\HCS\ARM\ARM5_Groundwork\form_9902_databag_5_0.xsd

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns="http://gov.hud.arm/form_9902_databag_5_0" targetNamespace="http://gov.hud.arm/form_9902_databag_5_0"
3         xmlns:st="http://gov.hud.arm/arm_databag" elementFormDefault="qualified">
4         <xs:import schemaLocation="simpleTypes5.0.xsd" namespace="http://gov.hud.arm/arm_databag" />
5         <xs:element name="SubmissionData">
6                 <xs:complexType>
```

U:\My Documents\HUD\HCS\ARM\v13_2_5_0_sdk\arm\src\main\resources\gov\hud\arm\databag\form_9902_databag_1_0.xsd

```
11                      </xs:all>
12                </xs:complexType>
13        </xs:element>
14        <xs:complexType name="Form_9902">
15                <xs:all>
16                        <xs:element name="report_period_id" type="st:refId" />
17                        <xs:element name="Ethnicity_Clients_Counseling_Hispanic" type="form9902Field" />
18                        <xs:element name="Ethnicity_Clients_Counseling_Non_Hispanic" type="form9902Field" />
19                        <xs:element name="Ethnicity_Clients_Counseling_No_Response" type="form9902Field" />
20                        <xs:element name="Section_3_Total" type="form9902Field" />
21                        <xs:element name="Race_Clients_Counseling_American_Indian_Alaskan_Native" type="form9902Field" />
22                        <xs:element name="Race_Clients_Counseling_Asian" type="form9902Field" />
23                        <xs:element name="Race_Clients_Counseling_Black_AfricanAmerican" type="form9902Field" />
24                        <xs:element name="Race_Clients_Counseling_Pacific_Islanders" type="form9902Field" />
25                        <xs:element name="Race_Clients_Counseling_White" type="form9902Field" />
26                        <xs:element name="MultiRace_Clients_Counseling_AMINDWHT" type="form9902Field" />
27                        <xs:element name="MultiRace_Clients_Counseling_ASIANWHT" type="form9902Field" />
28                        <xs:element name="MultiRace_Clients_Counseling_BLKWHT" type="form9902Field" />
29                        <xs:element name="MultiRace_Clients_Counseling_AMRCINDBLK" type="form9902Field" />
30                        <xs:element name="MultiRace_Clients_Counseling_OtherMLTRC" type="form9902Field" />
31                        <xs:element name="MultiRace_Clients_Counseling_NoResponse" type="form9902Field" />
32                        <xs:element name="Section_4_Total" type="form9902Field" />
33                        <xs:element name="Lesser50_AMI_Level" type="form9902Field" />
```

187 Exact

S:\HCS\ARM\ARM5_Groundwork\form_9902_databag_5_0.xsd

```
11                      </xs:all>
12                </xs:complexType>
13        </xs:element>
14        <xs:complexType name="Form_9902">
15                <xs:sequence>
16                        <xs:element name="Report_Period_Id" type="st:refId" />
17                        <xs:element name="Ethnicity_Households_Counseling_Hispanic" type="form9902Field"  maxOccurs="unbounded" />
18                        <xs:element name="Ethnicity_Households_Counseling_Non_Hispanic" type="form9902Field"  maxOccurs="unbounded" />
19                        <xs:element name="Ethnicity_Households_Counseling_No_Response" type="form9902Field"  maxOccurs="unbounded" />
20                        <xs:element name="Section_3_Total" type="form9902Field"  maxOccurs="unbounded" />
21                        <xs:element name="Race_Households_Counseling_American_Indian" type="form9902Field"  maxOccurs="unbounded" />
22                        <xs:element name="Race_Households_Counseling_Asian" type="form9902Field" maxOccurs="unbounded" />
23                        <xs:element name="Race_Households_Counseling_Black_African_American" type="form9902Field"  maxOccurs="unbounded" />
24                        <xs:element name="Race_Households_Counseling_Pacific_Islanders" type="form9902Field"  maxOccurs="unbounded" />
25                        <xs:element name="Race_Households_Counseling_White" type="form9902Field"  maxOccurs="unbounded" />
26                        <xs:element name="MultiRace_Households_Counseling_AMINDWHT" type="form9902Field"  maxOccurs="unbounded" />
27                        <xs:element name="MultiRace_Households_Counseling_ASIANWHT" type="form9902Field"  maxOccurs="unbounded" />
28                        <xs:element name="MultiRace_Households_Counseling_BLKWHT" type="form9902Field" maxOccurs="unbounded"  />
29                        <xs:element name="MultiRace_Households_Counseling_AMRCINDBLK" type="form9902Field"  maxOccurs="unbounded" />
30                        <xs:element name="MultiRace_Households_Counseling_OtherMLTRC" type="form9902Field"  maxOccurs="unbounded" />
31                        <xs:element name="MultiRace_Households_Counseling_No_Response" type="form9902Field"  maxOccurs="unbounded" />
```

U:\My Documents\HUD\HCS\ARM\v13_2_5_0_sdk\arm\src\main\resources\gov\hud\arm\databag\form_9902_databag_1_0.xsd

```
29  <xs:element name="MultiRace_Clients_Counseling_AMRCINDBLK" type="form9902Field" />
30  <xs:element name="MultiRace_Clients_Counseling_OtherMLTRC" type="form9902Field" />
31  <xs:element name="MultiRace_Clients_Counseling_NoResponse" type="form9902Field" />
32  <xs:element name="Section_4_Total" type="form9902Field" />
33  <xs:element name="Lesser50_AMI_Level" type="form9902Field" />
34  <xs:element name="a50_79_AMI_Level" type="form9902Field" />
35  <xs:element name="a80_100_AMI_Level" type="form9902Field" />
36  <xs:element name="Greater100_AMI_Level" type="form9902Field" />
37  <xs:element name="AMI_No_Response" type="form9902Field" />
38  <xs:element name="Section_5_Total" type="form9902Field" />
39  <xs:element name="Compl_HomeBuyer_Educ_Workshop" type="form9902Field" />
40  <xs:element name="Compl_Workshop_HomeFin_Credit_Repair" type="form9902Field" />
41  <xs:element name="Compl_Resolv_Prevent_Mortg_Deliq" type="form9902Field" />
42  <xs:element name="Compl_HomeMaint_FinMngt" type="form9902Field" />
43  <xs:element name="Compl_Help_FairHousing_Workshop" type="form9902Field" />
44  <xs:element name="Compl_Workshop_Predatory_Lend" type="form9902Field" />
45  <xs:element name="Counseling_Rental_Workshop" type="form9902Field" />
46  <xs:element name="Compl_Other_Workshop" type="form9902Field" />
47  <xs:element name="Group_6_Total" type="form9902Field" />
48  <xs:element name="Count_Prepurchase_Homebuyer_Counsel_PurchHousing" type="form9902Field" />
49  <xs:element name="Count_Prepurchase_Homebuyer_Counsel_Within_90" type="form9902Field" />
50  <xs:element name="Count_Prepurchase_Homebuyer_Counsel_Readyafter_90" type="form9902Field" />
51  <xs:element name="Count_Prepurchase_Homebuyer_Counsel_Longterm_Counseling" type="form9902Field" />
```

187 Exact

S:\HCS\ARM\ARM5_Groundwork\form_9902_databag_5_0.xsd

```
29  <xs:element name="MultiRace_Households_Counseling_AMRCINDBLK" type="form9902Field"  maxOccurs="unbounded" />
30  <xs:element name="MultiRace_Households_Counseling_OtherMLTRC" type="form9902Field"  maxOccurs="unbounded" />
31  <xs:element name="MultiRace_Households_Counseling_No_Response" type="form9902Field"  maxOccurs="unbounded" />
32  <xs:element name="Section_4_Total" type="form9902Field"  maxOccurs="unbounded" />
33  <xs:element name="Less30_AMI_Level" type="form9902Field"  maxOccurs="unbounded" />
34  <xs:element name="a30_49_AMI_Level" type="form9902Field"  maxOccurs="unbounded" />
35  <xs:element name="a50_79_AMI_Level" type="form9902Field"  maxOccurs="unbounded" />
36  <xs:element name="a80_100_AMI_Level" type="form9902Field"  maxOccurs="unbounded" />
37  <xs:element name="Greater100_AMI_Level" type="form9902Field"  maxOccurs="unbounded" />
38  <xs:element name="AMI_No_Response" type="form9902Field"  maxOccurs="unbounded" />
39  <xs:element name="Section_5_Total" type="form9902Field"  maxOccurs="unbounded" />
40  <xs:element name="Household_Lives_In_Rural_Area" type="form9902Field"  maxOccurs="unbounded" />
41  <xs:element name="Household_Does_Not_Live_In_Rural_Area" type="form9902Field"  maxOccurs="unbounded" />
42  <xs:element name="Rural_Area_No_Response" type="form9902Field"  maxOccurs="unbounded" />
43  <xs:element name="Section_6_Total" type="form9902Field"  maxOccurs="unbounded" />
44  <xs:element name="Household_Is_Limited_English_Proficient" type="form9902Field"  maxOccurs="unbounded" />
45  <xs:element name="Household_Is_Not_Limited_English_Proficient" type="form9902Field"  maxOccurs="unbounded" />
46  <xs:element name="Limited_English_Proficient_No_Response" type="form9902Field"  maxOccurs="unbounded" />
```

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```
51  <xs:element name="Count_Prepurchase_Homebuyer_Counsel_Longterm_Counseling" type="form9902Field" />
52  <xs:element name="Count_Prepurchase_Homebuyer_Counsel_Lease_Purchase_Prog" type="form9902Field" />
53  <xs:element name="Count_Prepurchase_Homebuyer_Counsel_Prepurchase_Nopurchase" type="form9902Field" />
54  <xs:element name="Count_Prepurchase_Homebuyer_Counsel_Prepurchase_Withdrew" type="form9902Field" />
55  <xs:element name="Count_Prepurchase_Homebuyer_Counsel_Other" type="form9902Field" />
56  <xs:element name="Section_7a_Total" type="form9902Field" />
57  <xs:element name="Count_Prevent_Mortgage_Deliquency_Mortgage_Current" type="form9902Field" />
58  <xs:element name="Count_Prevent_Mortgage_Deliquency_Mortgage_Refinanced" type="form9902Field" />
59  <xs:element name="Count_Prevent_Mortgage_Deliquency_Mortgage_Modified" type="form9902Field" />
60  <xs:element name="Count_Prevent_Mortgage_Deliquency_Second_Mortgage_Received" type="form9902Field" />
61  <xs:element name="Count_Prevent_Mortgage_Deliquency_Repayment_Plan_Initiated" type="form9902Field" />
62  <xs:element name="Count_Prevent_Mortgage_Deliquency_Executed_Deed_Lieu" type="form9902Field" />
63  <xs:element name="Count_Prevent_Mortgage_Deliquency_Sold_Property_Alternative" type="form9902Field" />
64  <xs:element name="Count_Prevent_Mortgage_Deliquency_Pre_Foreclosure_Sale" type="form9902Field" />
65  <xs:element name="Count_Prevent_Mortgage_Deliquency_Mortgage_Foreclosed" type="form9902Field" />
66  <xs:element name="Count_Prevent_Mortgage_Deliquency_Referred_to_Social_Serv" type="form9902Field" />
67  <xs:element name="Count_Prevent_Mortgage_Deliquency_Partial_Claim_FHA_Lender" type="form9902Field" />
68  <xs:element name="Count_Prevent_Mortgage_Deliquency_Bankcruptcy" type="form9902Field" />
69  <xs:element name="Count_Prevent_Mortgage_Deliquency_Debt_Manage_Plan" type="form9902Field" />
70  <xs:element name="Count_Prevent_Mortgage_Deliquency_Referred_to_Legal" type="form9902Field" />
71  <xs:element name="Count_Prevent_Mortgage_Deliquency_Current_Foreclosure_Prevention" type="form9902Field" />
72  <xs:element name="Count_Prevent_Mortgage_Deliquency_Withdrew" type="form9902Field" />
73  <xs:element name="Count_Prevent_Mortgage_Deliquency_Other" type="form9902Field" />
74  <xs:element name="Section_7b_Total" type="form9902Field" />
```

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```
47  <xs:element name="Section_7_Total" type="form9902Field"  maxOccurs="unbounded" />
48  <xs:element name="Group_Compl_Fin_Lit_Workshop" type="form9902Field"  maxOccurs="unbounded" />
49  <xs:element name="Group_Compl_Pred_Lend_Workshop" type="form9902Field"  maxOccurs="unbounded" />
50  <xs:element name="Group_Compl_Fair_Housing_Workshop" type="form9902Field"  maxOccurs="unbounded" />
51  <xs:element name="Group_Compl_Homeless_Prev_Workshop" type="form9902Field"  maxOccurs="unbounded" />
52  <xs:element name="Group_Compl_Rental_Workshop" type="form9902Field"  maxOccurs="unbounded" />
53  <xs:element name="Group_Compl_PrePurchase_HomeBuyer_Workshop" type="form9902Field"  maxOccurs="unbounded" />
54  <xs:element name="Group_Compl_NonDelinqency_PostPurchase_Workshop" type="form9902Field"  maxOccurs="unbounded" />
55  <xs:element name="Group_Compl_Resolv_Prevent_Mortg_Delinq_Workshop" type="form9902Field" maxOccurs="unbounded"  />
56  <xs:element name="Group_Compl_Other_Workshop" type="form9902Field"  maxOccurs="unbounded" />
```

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```
72  <xs:element name="Count_Prevent_Mortgage_Deliquency_Withdrew" type="form9902Field" />
73  <xs:element name="Count_Prevent_Mortgage_Deliquency_Other" type="form9902Field" />
74  <xs:element name="Section_7b_Total" type="form9902Field" />
75  <xs:element name="Count_HomeMaintenance_Fin_Management_HECM_Obtained" type="form9902Field" />
76  <xs:element name="Count_HomeMaintenance_Fin_Management_HECM_Counseled" type="form9902Field" />
77  <xs:element name="Count_HomeMaintenance_Fin_Management_Non_Reverse_Mortgage" type="form9902Field" />
78  <xs:element name="Count_HomeMaintenance_Fin_Management_Homeequity_Loan" type="form9902Field" />
79  <xs:element name="Count_HomeMaintenance_Fin_Management_Consumer_Loan" type="form9902Field" />
80  <xs:element name="Count_HomeMaintenance_Fin_Management_Mortgage_Refinanced" type="form9902Field" />
81  <xs:element name="Count_HomeMaintenance_Fin_Management_Other_Social_Agency" type="form9902Field" />
82  <xs:element name="Count_HomeMaintenance_Fin_Management_Sold_House" type="form9902Field" />
83  <xs:element name="Count_HomeMaintenance_Fin_Management_Complete_Budget_Counseling" type="form9902Field" />
84  <xs:element name="Count_HomeMaintenance_Fin_Management_Complete_Maintence_Counseling" type="form9902Field" />
85  <xs:element name="Count_HomeMaintenance_Fin_Management_Utilities_Current" type="form9902Field" />
86  <xs:element name="Count_HomeMaintenance_Fin_Management_Legal_Assistance" type="form9902Field" />
87  <xs:element name="Count_HomeMaintenance_Fin_Management_Receiving_Counseling" type="form9902Field" />
88  <xs:element name="Count_HomeMaintenance_Fin_Management_Withdrew_Counseling" type="form9902Field" />
89  <xs:element name="Count_HomeMaintenance_Fin_Management_Other" type="form9902Field" />
90  <xs:element name="Section_7c_Total" type="form9902Field" />
91  <xs:element name="Seeking_Help_Housing_Search_Assistance" type="form9902Field" />
92  <xs:element name="Seeking_Help_Housing_Temp_Rental_Relief" type="form9902Field" />
93  <xs:element name="Seeking_Help_Housing_Referred_to_Rental_Assistance" type="form9902Field" />
94  <xs:element name="Seeking_Help_Housing_Recertification_Subsidy_Program" type="form9902Field" />
95  <xs:element name="Seeking_Help_Housing_Referred_Other_Social_Agency" type="form9902Field" />
```

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```
57  <xs:element name="Section_8_Total" type="form9902Field"  maxOccurs="unbounded" />
58  <xs:element name="One_Homeless_Assistance_Counseling" type="form9902Field"  maxOccurs="unbounded" />
59  <xs:element name="One_Rental_Topics_Counseling" type="form9902Field"  maxOccurs="unbounded" />
60  <xs:element name="One_PrePurchase_HomeBuying_Counseling" type="form9902Field"  maxOccurs="unbounded" />
61  <xs:element name="One_Home_Maintenance_Fin_Management_Counseling" type="form9902Field"  maxOccurs="unbounded" />
62  <xs:element name="One_Reverse_Mortgage_Counseling" type="form9902Field"  maxOccurs="unbounded" />
63  <xs:element name="One_Resolv_Prevent_Mortg_Delinq_Counseling" type="form9902Field"  maxOccurs="unbounded" />
64  <xs:element name="Section_9_Total" type="form9902Field"  maxOccurs="unbounded" />
65  <xs:element name="Impact_One_On_One_And_Group" type="form9902Field"  maxOccurs="unbounded" />
66  <xs:element name="Impact_Received_Info_Fair_Housing" type="form9902Field"  maxOccurs="unbounded" />
```

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```
93    <xs:element name="Seeking_Help_Housing_Referred_to_Rental_Assistance" type="form9902Field" />
94    <xs:element name="Seeking_Help_Housing_Recertification_Subsidy_Program" type="form9902Field" />
95    <xs:element name="Seeking_Help_Housing_Referred_Other_Social_Agency" type="form9902Field" />
96    <xs:element name="Seeking_Help_Housing_Referred_Legal_Aid_Agency" type="form9902Field" />
97    <xs:element name="Seeking_Help_Housing_Referred_Legal_Agency_Eviction" type="form9902Field" />
98    <xs:element name="Seeking_Help_Housing_Found_Alternative_Housing" type="form9902Field" />
99    <xs:element name="Seeking_Help_Housing_Remain_CurrentHousing" type="form9902Field" />
100   <xs:element name="Seeking_Help_Housing_Resolved_Issue" type="form9902Field" />
101   <xs:element name="Seeking_Help_Housing_Debt_Mngmt_Entered" type="form9902Field" />
102   <xs:element name="Seeking_Help_Housing_Utilities_Current" type="form9902Field" />
103   <xs:element name="Seeking_Help_Housing_Security_Dep_Dispute" type="form9902Field" />
104   <xs:element name="Seeking_Help_Housing_Current_Counseled" type="form9902Field" />
105   <xs:element name="Seeking_Help_Housing_Withdrew_Counseling" type="form9902Field" />
106   <xs:element name="Seeking_Help_Housing_Other" type="form9902Field" />
107   <xs:element name="Section_7d_Total" type="form9902Field" />
108   <xs:element name="Count_Occupied_Emergency_Shelter" type="form9902Field" />
109   <xs:element name="Count_Occupied_Transitional_Housing" type="form9902Field" />
110   <xs:element name="Count_Occupied_Permnthouse_RentAssist" type="form9902Field" />
111   <xs:element name="Count_Occupied_PermntHouse_wo_RentAssist" type="form9902Field" />
112   <xs:element name="Count_Counseled_Ref_Other_SocAgency" type="form9902Field" />
113   <xs:element name="Count_Remained_Homeless" type="form9902Field" />
114   <xs:element name="Count_Currently_Receiving_Counsel" type="form9902Field" />
115   <xs:element name="Count_Withdrew_Counseling" type="form9902Field" />
116   <xs:element name="Count_Seek_Shelter_Other" type="form9902Field" />
```

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```
67    <xs:element name="Impact_Developed_Sustainable_Budget" type="form9902Field"  maxOccurs="unbounded" />
68    <xs:element name="Impact_Improved_Financial_Capacity" type="form9902Field"  maxOccurs="unbounded" />
69    <xs:element name="Impact_Gained_Access_Resources_Improve_Housing" type="form9902Field"  maxOccurs="unbounded" />
70    <xs:element name="Impact_Gained_Access_NonHousing_Resources" type="form9902Field"  maxOccurs="unbounded" />
71    <xs:element name="Impact_Homeless_Obtained_Housing" type="form9902Field"  maxOccurs="unbounded" />
72    <xs:element name="Impact_Received_Rental_Counseling_Avoided_Eviction" type="form9902Field"  maxOccurs="unbounded" />
73    <xs:element name="Impact_Received_Rental_Counseling_Improved_Living_Conditions" type="form9902Field"  maxOccurs="unbounded" />
74    <xs:element name="Impact_Received_PrePurchase_Counseling_Purchased_Housing" type="form9902Field" maxOccurs="unbounded"  />
75    <xs:element name="Impact_Received_Reverse_Mortgage_Counseling_Obtained_HECM" type="form9902Field"  maxOccurs="unbounded" />
76    <xs:element name="Impact_Received_NonDelinquency_PostPurchase_Counseling_Improve_Conditions_Affordability" type="form9902Field"  maxOccurs="unbounded" />
77    <xs:element name="Impact_Prevented_Resolved_Mortgage_Default" type="form9902Field"  maxOccurs="unbounded" />

78    <xs:element name="Section_10_Total" type="form9902Field"  maxOccurs="unbounded" />
```

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```
116                     <xs:element name="Count_Seek_Shelter_Other" type="form9902Field" />
117                     <xs:element name="Section_7e_Total" type="form9902Field" />
118                     <xs:element name="Section_7a_e_Total" type="form9902Field" />
119             </xs:all>
120     </xs:complexType>
121     <xs:complexType name="form9902Field">
122             <xs:simpleContent>
123                     <xs:extension base="st:numericFieldValue">
124                             <xs:attribute name="activity_type_id" type="st:activityTypeId" use="required" />
125                     </xs:extension>
126             </xs:simpleContent>
127     </xs:complexType>
128     <xs:complexType name="Group_Sessions">
129             <xs:sequence>
130                     <xs:element name="Group_Session" type="Group_Session" maxOccurs="unbounded" />
131             </xs:sequence>
132     </xs:complexType>
133     <xs:complexType name="Group_Session">
134             <xs:all>
135                     <xs:element name="group_session_id" type="st:groupSessionId" />
136                     <xs:element name="group_session_counselor_id" type="st:refId" />
137                     <xs:element name="group_session_title" type="st:sessionTitle" />
138                     <xs:element name="group_session_date" type="st:date" />
139                     <xs:element name="group_session_duration" type="st:sessionDuration" />
```

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```
79              </xs:sequence>
80      </xs:complexType>
81      <xs:complexType name="form9902Field">
82              <xs:simpleContent>
83                      <xs:extension base="st:numericFieldValue">
84                              <xs:attribute name="activity_type_id" type="st:activityTypeId" use="required" />
85                      </xs:extension>
86              </xs:simpleContent>
87      </xs:complexType>
88      <xs:complexType name="Group_Sessions">
89              <xs:sequence>
90                      <xs:element name="Group_Session" type="Group_Session" maxOccurs="unbounded" />
91              </xs:sequence>
92      </xs:complexType>
93      <xs:complexType name="Group_Session">
94              <xs:all>
95                      <xs:element name="Group_Session_Id" type="st:groupSessionId" />
96                      <xs:element name="Group_Session_Counselor_Id" type="st:refId" />
```

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```
137                     <xs:element name="group_session_title" type="st:sessionTitle" />
138                     <xs:element name="group_session_date" type="st:date" />
139                     <xs:element name="group_session_duration" type="st:sessionDuration" />
140                     <xs:element name="group_session_type" type="st:shortRefId" />
141                     <xs:element name="group_session_attribute_HUD_grant" type="st:shortRefId" />
142                     <xs:element name="group_session_attendees" minOccurs="0">
143                             <xs:complexType>
144                                     <xs:sequence>
145                                             <xs:element name="group_session_attendee" type="Group_Session_Attendee" minOccurs="1" maxOccurs="unbounded" />
146                                     </xs:sequence>
147                             </xs:complexType>
148                     </xs:element>
149             </xs:all>
150
151     </xs:complexType>
152     <xs:complexType name="Group_Session_Attendee">
153             <xs:all>
154             <xs:element name="attendee_id" type="st:refId"/>
155                     <xs:element name="Attendee_Fee_Amount" type="xs:nonNegativeInteger" />
156                     <xs:element name="Attendee_Referred_By" type="st:shortRefId" />
157                     <xs:element name="Attendee_FirstTime_Home_Buyer" type="st:yesOrNo" />
158                     <xs:element name="Attendee_Income_Level" type="st:incomeLevel" minOccurs="0"/>
159                     <xs:element name="Attendee_Address_1" type="st:addressLineLong" minOccurs="0"/>
```

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```
 97                     <xs:element name="Group_Session_Title" type="st:sessionTitle" />
 98                     <xs:element name="Group_Session_Date" type="st:date" />
 99                     <xs:element name="Group_Session_Duration" type="st:sessionDuration" />
100                     <xs:element name="Group_Session_Type" type="st:shortRefId" />
101                     <xs:element name="Group_Session_Attribute_HUD_Grant" type="st:shortRefId" />
102                     <xs:element name="Group_Session_Activity_Type" type="st:activityTypeId" />
103                     <xs:element name="Group_Session_Attendees" minOccurs="0">
104                             <xs:complexType>
105                                     <xs:sequence>
106                                             <xs:element name="Group_Session_Attendee" type="Group_Session_Attendee" minOccurs="1" maxOccurs="unbounded" />
107                                     </xs:sequence>
108                             </xs:complexType>
109                     </xs:element>
110             </xs:all>
111     </xs:complexType>
112     <xs:complexType name="Group_Session_Attendee">
113             <xs:all>
114             <xs:element name="Attendee_Id" type="st:refId"/>
115                     <xs:element name="Attendee_Fee_Amount" type="xs:nonNegativeInteger" />
116                     <xs:element name="Attendee_Referred_By" type="st:shortRefId" />
```

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```
156                     <xs:element name="Attendee_Referred_By" type="st:shortRefId" />
157                     <xs:element name="Attendee_FirstTime_Home_Buyer" type="st:yesOrNo" />
158                     <xs:element name="Attendee_Income_Level" type="st:incomeLevel" minOccurs="0"/>
159                     <xs:element name="Attendee_Address_1" type="st:addressLineLong" minOccurs="0"/>
160                     <xs:element name="Attendee_Address_2" type="st:addressLineLong" minOccurs="0" />
161                     <xs:element name="Attendee_City" type="st:city" minOccurs="0"/>
162                     <xs:element name="Attendee_State" type="st:state" minOccurs="0"/>
163                     <xs:element name="Attendee_Zip_Code" type="st:zip" minOccurs="0"/>
164                 </xs:all>
165         </xs:complexType>
166         <xs:complexType name="Attendees">
167                 <xs:sequence>
168                     <xs:element name="Attendee" type="Attendee" maxOccurs="unbounded" />
169                 </xs:sequence>
170         </xs:complexType>
171         <xs:complexType name="Attendee">
172                 <xs:all>
173                     <xs:element name="attendee_id" type="st:refId" />
174                     <xs:element name="Attendee_fname" type="st:name" minOccurs="0" />
175                     <xs:element name="Attendee_lname" type="st:name" minOccurs="0" />
176                     <xs:element name="Attendee_mname" type="st:name" minOccurs="0" />
177                     <xs:element name="Attendee_Address_1" type="st:addressLineLong" minOccurs="0" />
```

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```
116                     <xs:element name="Attendee_Referred_By" type="st:shortRefId" />
117                     <xs:element name="Attendee_FirstTime_Home_Buyer" type="st:yesOrNo" />
118                     <xs:element name="Attendee_Income_Level" type="st:incomeLevel" minOccurs="0"/>
119                     <xs:element name="Attendee_Address_1" type="st:addressLineLong" minOccurs="0"/>
120                     <xs:element name="Attendee_Address_2" type="st:addressLineLong" minOccurs="0" />
121                     <xs:element name="Attendee_City" type="st:city" minOccurs="0"/>
122                     <xs:element name="Attendee_State" type="st:state" minOccurs="0"/>
123                     <xs:element name="Attendee_Zip_Code" type="st:zip" minOccurs="0"/>
124                     <xs:element name="Attendee_Rural_Area" type="st:ruralAreaId" minOccurs="0" />
125                     <xs:element name="Attendee_Limited_English_Proficiency" type="st:limitedEngProfId" minOccurs="0" />
126                 </xs:all>
127         </xs:complexType>
128         <xs:complexType name="Attendees">
129                 <xs:sequence>
130                     <xs:element name="Attendee" type="Attendee" maxOccurs="unbounded" />
131                 </xs:sequence>
132         </xs:complexType>
133         <xs:complexType name="Attendee">
134                 <xs:all>
135                     <xs:element name="Attendee_Id" type="st:refId" />
136                     <xs:element name="Attendee_Fname" type="st:name" minOccurs="0" />
```

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```
166         <xs:complexType name="Attendees">
167                 <xs:sequence>
168                         <xs:element name="Attendee" type="Attendee" maxOccurs="unbounded" />
169                 </xs:sequence>
170         </xs:complexType>
171         <xs:complexType name="Attendee">
172                 <xs:all>
173                         <xs:element name="attendee_id" type="st:refId" />
174                         <xs:element name="Attendee_fname" type="st:name" minOccurs="0" />
175                         <xs:element name="Attendee_lname" type="st:name" minOccurs="0" />
176                         <xs:element name="Attendee_mname" type="st:name" minOccurs="0" />
177                         <xs:element name="Attendee_Address_1" type="st:addressLineLong" minOccurs="0" />
178                         <xs:element name="Attendee_Address_2" type="st:addressLineLong" minOccurs="0" />
179                         <xs:element name="Attendee_City" type="st:city" />
180                         <xs:element name="Attendee_State" type="st:state" />
181                         <xs:element name="Attendee_Zip_Code" type="st:zip" />
182                         <xs:element name="Attendee_Race_ID" type="st:race" />
183                         <xs:element name="Attendee_Ethnicity_ID" type="st:ethnicity" />
184                         <xs:element name="Attendee_Income_Level" type="st:incomeLevel" />
185                 </xs:all>
186         </xs:complexType>
187 </xs:schema>
```

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```
131                 </xs:sequence>
132         </xs:complexType>
133         <xs:complexType name="Attendee">
134                 <xs:all>
135                         <xs:element name="Attendee_Id" type="st:refId" />
136                         <xs:element name="Attendee_Fname" type="st:name" minOccurs="0" />
137                         <xs:element name="Attendee_Lname" type="st:name" minOccurs="0" />
138                         <xs:element name="Attendee_Mname" type="st:name" minOccurs="0" />
139                         <xs:element name="Attendee_Address_1" type="st:addressLineLong" minOccurs="0" />
140                         <xs:element name="Attendee_Address_2" type="st:addressLineLong" minOccurs="0" />
141                         <xs:element name="Attendee_City" type="st:city" />
142                         <xs:element name="Attendee_State" type="st:state" />
143                         <xs:element name="Attendee_Zip_Code" type="st:zip" />
144                         <xs:element name="Attendee_Rural_Area" type="st:ruralAreaId" />
145                         <xs:element name="Attendee_Limited_English_Proficiency" type="st:limitedEngProfId" />
146                         <xs:element name="Attendee_Race_ID" type="st:race" />
147                         <xs:element name="Attendee_Ethnicity_ID" type="st:ethnicity" />
148                         <xs:element name="Attendee_Income_Level" type="st:incomeLevel" />
149                 </xs:all>
150         </xs:complexType>
151 </xs:schema>
```

11.0 APPENDIX H: USDA RURAL AREA STATUS DETERMINATION

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The following section describes the currently available USDA methods for determining the rural area status of an address.

Manual Address Lookup:

Go to USDA.gov:

– In Popular Topics click Housing Assistance
– Click Income & Housing Eligibility
– Under Property Eligibility click Single Family Housing
– Accept the Property Eligibility Disclaimer
– Enter the Address and click GO!

The Lookup will then indicate if the address is in an eligible area or not.

USDA determination of “This address IS located an eligible area.” maps to HUD 9902 “Household lives in a rural area”.

USDA determination of “This address in not located an eligible area.” maps to HUD 9902 “Household does not live in a rural area”.

USDA determination of “We are unable to locate an exact address.” maps to HUD 9902 “Chose not to respond”.

USDA Web Service

The USDA offers an application programming interface that will allow CMS to look up the rural area eligibility of an address.The service description document is available at: http://portal.hud.gov/hudportal/documents/huddoc?id=OHC_HCSUSDA091214.doc

The document describes three request types – Income, Property, and IncomeProperty. CMS shoud use the **Property** request type to determine Rural Area Eligibility.

USDA determination of “Eligible” maps to HUD 9902 “Household lives in a rural area”.

USDA determination of “InEligible” maps to HUD 9902 “Household does not live in a rural area”.

USDA determination of “UnableToVerifyAddress” maps to HUD 9902 “Chose not to respond”.