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

INTERFACE CONTROL DOCUMENT (ICD)

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Revision Sheet

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1.0.0.1	11/14/2008	Corrections to XML tags descriptions
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2.0.0.3	09/21/2011	Updates to section 2.2

Section	Changes
2.2	- Added description of agency address validation

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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 Single Family Housing (SFH) 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 is developing an interface to receive the HUD 9902 form, agency 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
Dynamic Systems Technology, Inc. (DysTech), Project Manager	Andrey Ignatov	571.321.0460 Ext. 109	AndreyI@dystech.com
Dynamic Systems Technology, Inc. (DysTech), System Consultant	Vadim Pshenichnikov	571.321.0460 Ext. 102	VadimP@dystech.com

1.4 Project Reference

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

Reference	Date
CARS INTERFACE CONTROL DOCUMENT (ICD) 2.3.1	11/2007

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	An individual that is seeking housing counseling at an agency.
Client Management System (CMS) Vendor	The company that makes and markets the CMS product.

Terminology	Definition
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
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.

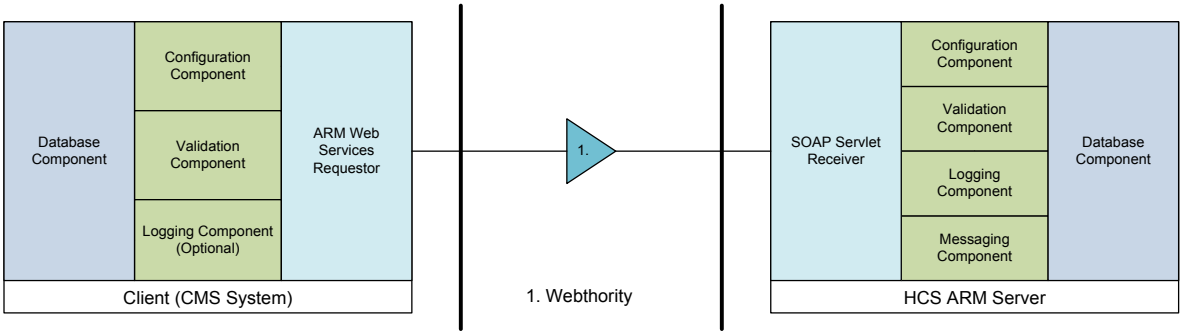
2.1 System/Subsystem Description

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 will best fulfill 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.

CMS Client to the HCS ARM Web Service Interface



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 within the timeline of the pilot 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 agency ID, user ID and 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.

2.1.4 Server

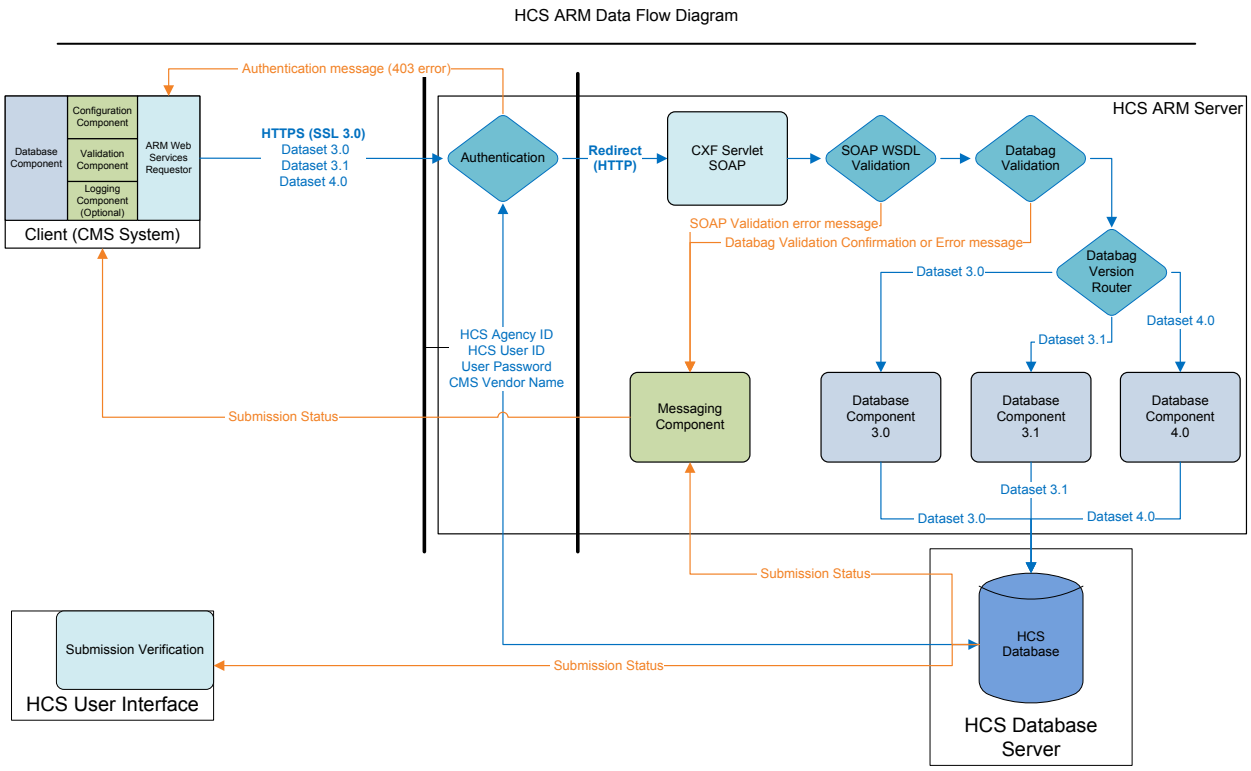
The ARM web service, as mentioned previously, is based on SOAP and utilizes the SOAP specification where the data is contained in the attachments or body of the message. Certain client platform technologies support SOAP with Attachments and some do not. It is up to the CMS's to determine which type of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

'postSubmission' method argument (as defined in arm.wsdl)	Value	Notes
'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.

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. Versions 3.0 and 3.1 of the ARM databag contain the definitions for all datamap sections in one file whereas in version 4.0, the databag is split up into multiple XSD files based on related datamap sections. For those CMS's just coming on board, it is always advisable to use the latest version of the databag.

2.1.2.1 <u>ARM 3.0 and 3.1 Databags</u>

ARM_DATABAG_3_0.XSD and ARM_DATABAG_3_1.XSD are the two databag schema files for 3.0 and 3.1 respectively. They support the ARM '*postSubmission'* web service method. Both versions define the data submissions required of the CMS's as of January 1st, 2009. The ARM interface is backward compatible and will continue to support the arm_databag_3_0.XSD through May 2011 and arm_databag_3_1.XSD through the end of the 2011 fiscal year.

2.1.2.2 <u>ARM 4.0 Databags</u>

The processing model for ARM 4.0 is significantly different. There are now 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.

Databag Name	Web Service Method	Datamap Sections
agency_profile_databag_1_0	postAgencyData	AgencyProfileData, Agency_Contacts
client_profile_databag_1_0	postClientData	Client_Profiles, Client_Profile
counselor_profile_databag_1_0	postCounselorData	Counselor_Profiles, Counselor_Profile, Counselor_Training, Counselor_Training_Course
form_9902_databag_1_0	postForm9902Data	Form_9902, Group_Sessions, Group_Sessions, Group_Session_Attendees, Group_Session_Attendee, Attendees, and Attendee

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

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

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 3.X databag transactions submitted via the *postSubmission* web service methods. Any submissions that do not validate against the ARM_DATABAG_3_X.XSD will be rejected and the client will receive a standard SOAP Fault indicating the validation rules(s) violated. ARM validates all 4.0 databag transaction 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 the ARM_DATABAG_3_X.XSD or one of the 4.0 databags.

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 3.0 & 3.1: “postSubmission” ARM 4.0: “postAgencyData”, “postClientData”, “postCounselorData” and “postForm9902Data”of the WebServices interface.	This element is defined in the ARM 3.0, 3.1 and all 4.0 XSDs as SubmissionData.
AgencyProfileData	This element defines a section related to the Agency Profile data section only.	This element is defined in the ARM 3.0, 3.1 and agency_profile_databag_1_0 XSD as AgencyProfileData.
AgencyContacts	This element defines a section related to Agency Contact data associated with the agency.	This element is defined in the ARM 3.0, 3.1 and agency_profile_databag_1_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 ARM 3.0, 3.1 and counselor_profile_databag_1_0 XSD as Counselor_Profiles.
Counselor_Training_Courses	This element defines the course associated with Counselor_Trainings	This element is defined in the ARM 3.1 and counselor_profile_databag_1_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 ARM 3.0, 3.1 and counselor_profile_databag_1_0 XSD as Counselor_Trainings

HCS ARM Databag Element - DTD	Description	Utilization
Group_Sessions	This element relates a Agency_Counselor and Attendees to a Group_Session	This element is defined in the ARM 3.1 and form_9902_databag_1_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 ARM 3.1 and form_9902_databag_1_0 XSD as Attendees
Client_Profiles	This element defines a section related to the Client Profile data.	This element is defined in the ARM 3.0, 3.1 and client_profile_databag_1_0 XSD as Client_Profiles.
Form_9902s	This element defines a section related to the 9902 Form data	This element is defined in the ARM 3.0, 3.1 and form_9902_databag_1_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 exceeded in the field value a validation error will occur.

Field Element Attributes	Attribute Description	Notes
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; requiredActivityTypes	This attribute designates the 9902 Form column the required type_id value is associated with it. For all submissions, the only accepted value is 4. (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.

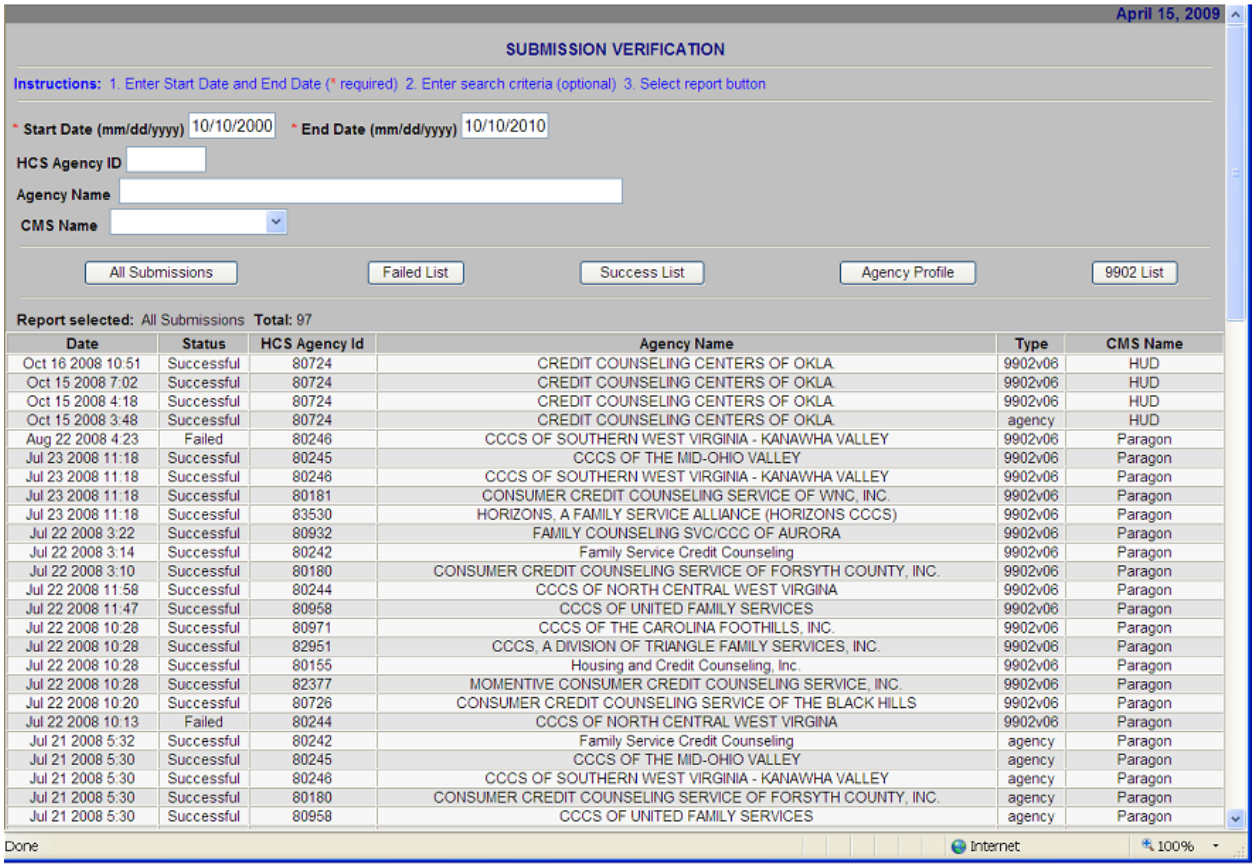
Refer to Section 8.0, Appendix E, of this document for the WSDL details.

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, 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.



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

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	<agc_state/> <contact_state/> <Client_State/> <Client_New_State/> <Attendee_State/>	0	The States used by HUD
Language	<agency_languagues/>:<language/> <cnslor_languages>:<language/> <Client_Language_Spoken/>	1	The possible languages
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	<agc_cms_type/>, <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

Reference Data	Used in XML Tags	ID for getReference service	Comments
Home Maintenance Outcome	<Client_Home_Maint_Fin_Mgmt/> <Client_Outcome_Of_Visit>	16	The possible outcomes of home maintenance and financial management counseling from the HUD 9902 Form
Homeless Outcome	<Client_Occupied/> <Client_Outcome_Of_Visit>	17	The possible outcomes of homeless counseling 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
Income Level	<Client_Income_Level/> <Attendee_Income_Level/>	20	The 5 categories of AMI from the HUD 9902 Form
Mortgage Delinquency Outcome	<Client_Prevent_Mortgage_Delinquency/> <Client_Outcome_Of_Visit>	21	The outcome possibilities of mortgage delinquency prevention counseling from the HUD 9902 Form.
Prepurchase Counsel Outcome	<Client_Prepurchase_Counsel/> <Client_Outcome_Of_Visit>	22	The outcome possibilities of prepurchase counseling from the HUD 9902 Form.
Referred By	<Client_Referred_By/> <Attendee_Referred_By>	23	The possible ways a client was referred to agency
Rental Outcome	<Client_Seeking_Help_Housing/> <Client_Outcome_Of_Visit>	24	The outcome possibilities of rental counseling from the HUD 9902 Form
Contact Title	<contact_title/>	25	The list of business titles used by HUD
Training Organization	<cnslor_training_org/>	26	List of organizations providing counselor training

Reference Data	Used in XML Tags	ID for getReference service	Comments
Training Sponsor	<cnslor_training_sponsor/>	27	List of organizations providing counselor training sponsorship
Fiscal Year	<fiscalYearId/> <fiscal_year>	28	List of fiscal years and corresponding ID's.
Report Period	<report_period_id/> <reportingPeriodId>	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.
Counseling Service Types	<counseling_service_types>	36	IDs and descriptions for the different services a counselor is trained to provide.

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. 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 2006.

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

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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.

XML Tag Name - Header	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<agcHcsId>	Agency ID from HCS system. This information is used for tracking and authentication. In 4.0 it is used to identify which agency profile is being updated	Y	
<agcName>	Agency name used in HCS. This walue is only used for reporting and submission logging purpoces The value will be converted in upper case while processed.	Y	
<systemName/>	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.* Please refer to Section 2.2.9 for reference to the web service to retrieve ID of your CMS system.	Y	Changed to numeric ID. Replaced by <cmsVendorId> in Dataset 4.0.

XML Tag Name - Header	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<cmsVendorId/>	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.* Please refer to Section 2.2.9 for reference to the web service to retrieve ID of your CMS system.	Y	Added in Dataset 4.0 replacing system_name.
<subFlag/>	Submission Flag requires numeric value to be provided. Provide value 0. This is a deprecated tag and will be eliminated in future release.	Y	Removed in Dataset 4.0
<fiscalYearId/>	Accepts a two-digit fiscal year ID value. Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve fiscal year ID.	Y	Added in Dataset 4.0. Replaces <fiscal_year> in <agencyProfileData>
<reportingPeriodId/>	An integer ID of the report period. The report period corresponds to a quarter of the fiscal year. Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Added in Dataset 4.0.
<SubmissionData>	XML Header - It is the outer most XML tag which needs to be present in order for the system to recognize the “Submission” method.	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.	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_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.
<agency_counseling_methods/>	This datamap section defines the Agency Counseling Methods data. Added for Dataset 4.0	**Added for Dataset 4.0.** 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.
<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.

HCS ARM Datamap Section Name - DTD	Description	Utilization
<cnslor_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.
<Counselor_Trainings/>	This datamap section includes counselor training session.	Indicates a section of the submission related to counselor training.
<Counselor_Training_Courses/>	This datamap section includes counselor ID and training session ID.	Indicates a section of the submission related to counselor and training.

Agency Profile - Data Elements

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

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<agc_name/>	Agency name used in HCS. As of 10.8.1.0, this is a read-only field used for identification & verification purposes. Agencies wishing to change their name need to do so through HCS direclty.The value will be converted in upper case while processed.	N	Removed in Dataset 4.0.
<agc_hcs_id/>	HCS system assigned Agency ID (unique number in HCS system)	Y	Removed in Dataset 4.0 – includedin submissionHeader4.0 instead.
<agc_ein/>	Agency federal employee identification number, Also known as TIN (Tax Identification Number) Data must be presented in following format: '00-0000000'	Y	
<fiscal_year/>	Accepts a two-digit fiscal year ID value. Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve fiscal year ID.	Y	The application controls which fiscal year is open for transactions. By default the current and previous fiscal years are open to accept transactions. Removed in Dataset 4.0 – included in submissionHeader4.0 instead.

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<reported_month/>	Identifies what month the data is reported for. Agencies will be required to submit agency profile data monthly. 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.	Y	
<agc_dun_nbr/>	Agency Dunn & Bradstreet identification number. If provided, it must be 9 digits in length. If not provided the system defaults it to ‘000000000’.	Y	The value is required to comply with anticipated regulatory changes.
<agc_address1/>	Agency’s current physical street address	Y	Removed in Dataset 4.0 and replaced by set of fields named agc_physical_XXX to distinguish the physical address from the
<agc_address2/>	Agency’s current physical street address 2	N	
<agc_address3/>	Agency’s current physical street address 3	N	
<agc_address4/>	Agency’s current physical street address 4	N	
<agc_city/>	Agency’s current city	Y	

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<agc_state/>	Agency's current state Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	mailing address.
<agc_zip/>	Agency's current ZIP code. The ZIP code may be provided in short '00000' or full '00000-0000' format.	Y	
<agc_physical_address1/>	Agency's current physical street address	Y	Added in Dataset 4.0. Replaces agc_address1.
<agc_physical_address2/>	Agency's current physical street address 2	N	Added in Dataset 4.0. Replaces agc_address2.
<agc_physical_address3/>	Agency's current physical street address 3	N	Added in Dataset 4.0. Replaces agc_address3.
<agc_physical_address4/>	Agency's current physical street address 4	N	Added in Dataset 4.0. Replaces agc_address4.
<agc_physical_city/>	Agency's current city	Y	Added in Dataset 4.0. Replaces agc_city.
<agc_physical_state/>	Agency's current state Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Added in Dataset 4.0. Replaces agc_state.
<agc_physical_zip/>	Agency's current ZIP code. The ZIP code may be provided in short '00000' or full '00000-0000' format.	Y	Added in Dataset 4.0. Replaces agc_zip.
<agc_mailing_address1/>	Agency's current mailing street address. If not provided, it is populated with agc_physical_address1 in data source.	N	Added in Dataset 4.0.
<agc_mailing_address2/>	Agency's current mailing street address 2. If not provided, it is populated with agc_physical_address2 in data source.	N	Added in Dataset 4.0.

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<agc_mailing_address3/>	Agency's current mailing street address 3. If not provided, it is populated with agc_physical_address3 in data source.	N	Added in Dataset 4.0.
<agc_mailing_address4/>	Agency's current mailing street address 4. If not provided, it is populated with agc_physical_address4 in data source.	N	Added in Dataset 4.0.
<agc_mailing_city/>	Agency's current city. If not provided, it is populated with agc_physical_city in data source.	N	Added in Dataset 4.0.
<agc_mailing_state/>	Agency's current state. If not provided, it is populated with agc_physical_state in data source. Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	N	Added in Dataset 4.0.
<agc_mailing_zip/>	Agency's current ZIP code. The ZIP code may be provided in short '00000' or full '00000-0000' format. If not provided, it is populated with agc_physical_zip in data source.	N	Added in Dataset 4.0.
<agc_web_site/>	Agency's web site. The value must start with 'http://' or 'https://' to be properly displayed when published.	Y	
<agc_phone_nbr/>	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'	Y	

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<alternate_phone_nbr/>	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'	N	Removed in Dataset 4.0 and replaced by agc_tollfree_phone_nbr.
<agc_tollfree_phone_nbr/>	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'	N	Added in Dataset 4.0 to replace alternate_phone_nbr
<agc_fax_nbr>	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'	N	
<agc_email>	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'.	N	
<agc_faith_based_ind/>	Indicator that identifies the agency as a faith based organization Allowed values: 'Y'/'N' (upper case)	Y	
<agc_colonias_ind/>	Indicator of services provided to the Colonias population. Allowed values: 'Y'/'N' (upper case)	Y	
<agc_migrfarm_worker_ind/>	Indicator that the agency serves migrant farm workers. Allowed values: 'Y'/'N' (upper case)	Y	

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<agc_counselin_budget_amt/>	Identifies Agency's total Housing Counseling Budget. The data shall contain integer numeric value only.	Y	Removed in Dataset 4.0 and replaced by agc_counseling_budget_amount
<agc_counseling_budget_amount/>	Identifies Agency's total Housing Counseling Budget. The data shall contain integer numeric value only.	Y	Added in Dataset 4.0 to replace agc_counselin_budget_amt.
<agc_cms_type/>	ID of the client management system used by the agency. Allowed values: Please refer to Section 2.2.9 for reference to the web service for allowed values.	Y	Please take care to use the id provided when you were given connectivity to ARM. This will ensure you get credit for the agencies you support. Removed in Dataset 4.0. Now it will be specified in submissionHeader only.
<agency_languages/>	Parent element for language, 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.	Y	
<language/>	Unique identifier for language. Each instance identifies a language the agency supports Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. If the language is not available default it to English.	Y	Do not duplicate language ids.
<agency_counseling_methods/>	Parent element for set of counseling methods agency offers.	Y	New for Dataset 4.0

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<counseling_method/>	For each type of counseling the agency provides, there should be a corresponding entry. No duplicate entries are allowed. At least 1 type must be specified. Allowed values: Please refer to section 2.2.9 for reference to web service to retrieve allowed values.	Y	New for Dataset 4.0
<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.	Y	
<contact_type/>	Identifies the type of agency personnel. Allowed values: **Numeric** **String** 2 Agency Senior Executive 3 Agency Manager 11 Agency Contact for HUD Use Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	
<contact_fname/>	Agency contact first name	Y	

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<contact_lname/>	Agency contact last name	Y	
<contact_mname/>	Agency contact middle name initial. One character middle initial is accepted as a value.	N	
<contact_title/>	Numeric code of Agency contact business title Examples of the values are: **Numeric** **String** 1 'HUD Contact' 2 'Office Executive' 3 'Office Manager' Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	
<contact_address1/>	Agency mailing street address line 1. *This address will be used by HUD to send official business correspondence*.	Y	
<contact_address2/>	Agency mailing street address line 2. *This address will be used by HUD to send official business correspondence.*	N	
<contact_city/>	Agency mailing city. *This address will be used by HUD to send official business correspondence.*	Y	
<contact_state/>	Agency mailing state. *This address will be used by HUD to send official business correspondence.* Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<contact_zip_code/>	Agency mailing zip code. The ZIP code may be provided in short '00000' or full '00000-0000' format. *This address will be used by HUD to send official business correspondence.*	Y	
<contact_phone_nbr/>	Agency contact phone. The phone number shall contain 3 digit area code and 7 digit phone. Format value as '999-999-9999'	Y	
<contact_ext_nbr/>	Agency contact Phone Extension up to 10 digits. Numeric value only.	N	
<contact_mobile_nbr/>	Agency contact Mobile Phone. The phone number shall contain 3 digit area code and 7 digit phone. Format value as '999-999-9999'	N	
<contact_fax_nbr/>	Agency contact FAX. The FAX number shall contain 3 digit area code and 7 digits FAX. Format value as '999-999-9999'	N	
<contact_email/>	Agency contact email address for further 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'.	Y	
<Counselor_Profile/>	This element contains information for each agency counselor. Must be enclosed by <Counselor_Profiles/>.	N	

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<cms_counselor_id/>	Counselor ID associated with the agency *The agency generated counselor ID is required to link counselors with clients.*	Y	
<cnslor_fname/>	Agency counselor first name	Y	
<cnslor_mname/>	Agency counselor middle name initial. One character value is accepted.	N	
<cnslor_lname/>	Agency counselor last name	Y	
<cnslor_emp_start_date/>	The start date of counselor employment. The year must be within the 19xx and 20xx range.	Y	Dataset 3.1.0.0 and higher only. As of 4.0, the date must be formatted as MM-DD-YYYY.
<cnslor_emp_end_date/>	The employment end date. The employment end date needs to be provided when the counselor services are terminated. If no value is provided the system will default it to NULL, and will assume that the counselor is currently employed with the agency. The year must be within the 19xx and 20xx range.	N	Dataset 3.1.0.0 and higher only. As of 4.0, the date must be formatted as MM-DD-YYYY.
<cnslor_HUD_id/>	Placeholder for future release where counselors register themselves through FHA Connection. For now, no need to provide this field.	N	Added in Dataset 4.0 (NEW VALUE)
<cnslor_rate/>	Hourly rate counselor charges clients.	Y	Added in Dataset 4.0 (NEW VALUE)
<cnslor_billing_method/>	Description of counselor billing method. Allowed values are ‘Hourly’ or ‘Fixed’.	N	Added in Dataset 4.0 (NEW VALUE)

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<cnslor_SSN/>	This is the full SSN for the counselor – it will help serve as a unique identifier for the counselor across all agencies.	Y	Added in Dataset 4.0 (NEW VALUE)
<cnslor_phone>	The counselor's phone number.	N	Added in Dataset 4.0 (NEW VALUE)
<cnslor_email>	The counselor's email address.	N	Added in Dataset 4.0 (NEW VALUE)
<cnslor_service_types>	Parent element for service_type. 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.	N	Added in Dataset 4.0 (NEW VALUE)
<service_type>	The list of services this counselor provides. This should be a subset of the set of service types the agency provides. Please refer to Section 2.2.9 for information on the web service to retrieve acceptable values.	N	Added in Dataset 4.0 (NEW VALUE)
<cnslor__languages/>	Parent element for language: 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.	N	Added in Dataset 4.0 (NEW VALUE)

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
< language/>	Language(s) the counselor is able to speak. It is expected that all counselors provide services in English. If no language is provided, a default entry of English is added to submission. Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. When not available set value to English.	N	Added in Dataset 4.0 only (NEW VALUE)
<Counselor_Training_Course/>	This element contains information for every counselor training course. Must be enclosed by Counselor_Training_Courses.	N	
<cnslor_training_course_id/>	Unique course id for this training course.	Y	
<cnslor_training_title/>	The title of the training course attended by the counselor.	Y	Dataset 3.1.0.0 and higher only
<cnslor_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'.	Y	Dataset 3.1.0.0 and higher only. As of 4.0, the date must be formatted as MM-DD-YYYY.
<cnslor_training_org/>	The organization that provided the training course. Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Dataset 3.1.0.0 and higher only
<cnslor_training_org_other/>	Name of organization that provided the training course if cnslor_training_org value is set to 'Other'.	N	Dataset 3.1.0.0 and higher only

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<cnslor_training_sponsor/>	The organization that sponsored the training course Possible Values: Numeric String 1 N/A 2 HUD 3 Other Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. If the value is not available default it to 'N/A'.	Y	Dataset 3.1.0.0 and higher only
<cnslor_training_sponsor_other/>	Name of organization that sponsored the training course if cnslor_training_sponsor value is set to Other.	N	Added in Dataset 4.0 only (NEW VALUE)
<cnslr_training_duration/>	Duration of training session. Unit of time to be determined.	N	Added in Dataset 4.0 only (NEW VALUE)
<Counselor_Training>	Parent element for counselor training. Links counselor training course with counselors who attended.	N	Dataset 3.1.0.0 and higher only
<cms_counselor_id>	Counselor ID that attended this training. Must match cms_counselor_id for a counselor_profile element in submission.	Y	Dataset 3.1.0.0 and higher only
<cnslor_training_cert/>	Indicates whether the counselor received a certificate from the training course attended. Values: 'Y' - course completed and certificate received. 'N' - course completed, but certificate is not received.	Y	Dataset 3.1.0.0 and higher only
<cnslor_training_course_id>	Must match value supplied in a Counselor_Training_Course element of this submission.	Y	Dataset 3.1.0.0 and higher only

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<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.	N	Dataset 3.1.0.0 and higher only
<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.	N	Dataset 3.1.0.0 and higher only
<group_session_id/>	A unique id for an instance of a group session conducted by a counseling agency. *Agency shall generate unique id for group sessions.*	Y	Dataset 3.1.0.0 and higher only
<group_session_title/>	The title of the group session conducted by a counseling agency.	Y	Dataset 3.1.0.0 and higher only
<group_session_date/>	The day the group session was conducted or the last day of the group session if session spanned multiple days. The year must be within the 19xx and 20xx range.	Y	Dataset 3.1.0.0 and higher only. As of 4.0, the date must be formatted as MM-DD-YYYY.
<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.*	Y	Dataset 3.1.0.0 and higher only
<group_session_counselor_id/>	The cms_counselor_id of the counselor that taught or led the group session.	Y	Dataset 3.1.0.0 and higher only. For 3.1, should match cms_counselor_id for counselor_profile provided in submission. For 4.0, it should match the cms_counselor_id of a counselor previously submitted via postCounselorData.

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<group_session_type/>	The topic covered in the group session. This provides the data for calculating HUD 9902 group session numbers. Possible Values: Please refer to Section 2.2.9 for reference web service to retrieve allowed values.	Y	Dataset 3.1.0.0 and higher only. If value is not within the range of values, the submission will fail in Dataset 4.0.
<group_session_attribute_HUD_grant/>	Indicates the type of the HUD Housing Counseling Grant that was used to fund the course. Example: 'Comprehensive', 'HECM', 'Training'. Possible Values: Please refer to Section 2.2.9 for reference web service to retrieve allowed values.	Y	Dataset 3.1.0.0 and higher only. If value is not within the range of values, the submission will fail in Dataset 4.0.
<attendee_ids>	Enclosing element for attendee_id elements.	N	Dataset 3.1.0.0 only.
<attendee_id>	Element for attendee who attended group session. Value must match the attendee_id of an Attendee element within same submission.	Y	Dataset 3.1.0.0 only.
<group_session_attendees>	Enclosing element for group_session_attendee elements.	N	Dataset 4.0 only. Replaces attendee_ids.
<group_session_attendee>	Element for attendee who attended group session.	N	Dataset 4.0 only. Replaces attendee_id. See list of associated elements below.
<attendee_id/>	Unique identifier that corresponds to an attendee_id in Attendee element of same submission.	Y	Dataset 4.0 only.

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<Attendee_Fee_Amount/>	The amount client paid for course. If the value is not available default it to '0'. Integer numeric value only.	Y	Dataset 4.0 only Additional data format restriction.
<Attendee_Referred_By/>	Indicates the source of reference the attendee learned about the program Allowed Values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Dataset 4.0 only.
<Attendee_FirstTime_Home_Buyer/>	Indicator of whether the attendee is a first time home buyer before receiving education and is seeking to be a first time home buyer. Y/N Yes indicates the attendee has never previously owned a home. No indicates the attendee has previously owned a home.	Y	Dataset 4.0 only.
<Attendee_Address_1/>	Attendee's street address of residence	N	Dataset 4.0 only
<Attendee_Address_2/>	Attendee's street address of residence	N	Dataset 4.0 only
<Attendee_City/>	Attendee's City of residence	N	Dataset 4.0 only
<Attendee_State/>	Attendee's state of residence Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	N	Dataset 4.0 only

XML Tag Name - Agency	XML Tag Description	Value Required Y = Yes N = No	Release Comments
<Attendee_Zip_Code/>	Attendee's Zip Code of residence. The ZIP code may be provided in short '00000' or full '00000-0000' format.	N	Dataset 4.0 only
<Attendee_Income_Level/>	Allowed Values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	N	Dataset 4.0 only.

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.

The 9902 XML cannot be sent as an individual submission, it must contain the Agency Profile XML. The client level XML can only be submitted with 9902 and Agency Profile.

9902 Form – 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 9902 form data elements. These fields represent ONLY the "All Counseling and Education Activities" column of the Form 9902 Report. See activity_type_id description below.

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
	<Form9902/>	Section Header	Y	

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
	<report_period_id/>	An integer ID of the report period. The report period corresponds to a quarter of the fiscal year. Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	
	<activity_type_id/>	The activity types that are reported on the 9902 that are funded by HUD or other sources. This is a required attribute for all form_9902 child elements described below. Activity=4: All Counseling and Education Activities Activity=5: Counseling and Education Activities Attributed to HUD Housing Counseling Grant Funds The only allowed value is 4.	Y	
3.a	<Ethnicity_Clients_Counseling_Hispanic/>	Sum of clients counseled with an ethnicity of “Hispanic”	Y	
3.b	<Ethnicity_Clients_Counseling_Non_Hispanic/>	Sum of clients counseled with an ethnicity of “Not Hispanic”	Y	
3.c	<Ethnicity_Clients_Counseling_No_Response/>	Sum of client counseled with an Ethnicity of “Chose not to respond”	Y	
	<Section_3_Total/>	Section 3 Total	Y	
4.a	<Race_Clients_Counseling_American_Indian_Alaskan_Native/>	Sum of clients counseled who are “American Indian/Alaskan Native”	Y	
4.b	<Race_Clients_Counseling_Asian/>	Sum of clients counseled who are “Asian”	Y	

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
4.c	<Race_Clients_Counseling_Black_African American/>	Sum of clients counseled who are "Black or African American"	Y	
4.d	<Race_Clients_Counseling_Pacific_Islanders/>	Sum of clients counseled who are "Native Hawaiian or Other Pacific Islander"	Y	
4.e	<Race_Clients_Counseling_White/>	Sum of clients counseled who are "White"	Y	
4.f	<MultiRace_Clients_Counseling_AMINDWHT/>	Sum of clients counseled who are "American Indian or Alaska Native *and* White"	Y	
4.g	<MultiRace_Clients_Counseling_ASIANWHT/>	Sum of clients counseled who are "Asian *and* White"	Y	
4.h	<MultiRace_Clients_Counseling_BLKWHT/>	Sum of clients counseled who are "Black or African American *and* White"	Y	
4.i	<MultiRace_Clients_Counseling_AMRCINDBLK/>	Sum of clients counseled who are "American Indian or Alaska Native *and* Black or African American"	Y	
4.j	<MultiRace_Clients_Counseling_OtherMLTRC/>	Sum of clients counseled who are "Other multiple race"	Y	
4.k	<MultiRace_Clients_Counseling_NoResponse/>	Sum of clients counseled who "Chose not to respond"	Y	
	<Section_4_Total/>	Section 4 Total	Y	
5.a	<Lesser50_AMI_Level/>	Sum of all clients with income levels "less than 50% of Area Median Income (AMI)". Provide a value of 0 if no data.	Y	
5.b	<a50_79_AMI_Level/>	Sum of all clients with income levels "between 50 – 79% of AMI" Provide a value of 0 if no data.	Y	
5.c	<a80_100_AMI_Level/>	Sum of all clients with income levels "between 80 – 100% of AMI" Provide a value of 0 if no data.	Y	

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
5.d	<Greater100_AMI_Level/>	Sum of all clients with income levels "greater than 100% AMI" Provide a value of 0 if no data.	Y	
5.e	<AMI_No_Response/>	Sum of all clients with income levels of "Chose not to respond" Provide a value of 0 if no data.	Y	
	<Section_5_Total/>	Section 5 Total	Y	
6.a	<Compl_Homebuyer_Educ_Workshop/>	Sum of clients "Completed pre-purchase homebuyer education workshop"	Y	
6.b	<Compl_Workshop_HomeFin_Credit_Repair/>	Sum of clients "Completed financial literacy workshop, including home financing, budgeting and/or credit repair"	Y	
6.c	<Compl_Resolv_Prevent_Mortg_Deliq/>	Sum of clients "Completed resolving or preventing mortgage delinquently workshop"	Y	
6.d	<Compl_HomeMaint_FinMngt/>	Sum of clients "Completed non-delinquency post-purchase workshop, including home maintenance and/or financial management for homeowners"	Y	
6.e	<Compl_Help_FairHousing_Workshop/>	Sum of clients "Completed fair housing workshop"	Y	
6.f	<Compl_Workshop_Predatory_Lend/>	Sum of clients "Completed predatory lending workshop"	Y	
6.g	<Counseling_Rental_Workshop/>	Sum of clients "Completed rental workshop"	Y	
6.h	<Compl_Other_Workshop/>	Sum of clients completed "Other workshop"	Y	
	<Group_6_Total/>	Section 6 Total	Y	

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
7.a.1	<Count_Prepurchase_Homebuyer_Counsel_PurchHousing/>	Sum of clients "Seeking Pre-Purchase Homebuyer Counseling – Purchased housing"	Y	
7.a.2	<Count_Prepurchase_Homebuyer_Counsel_Within_90/>	Sum of clients "Seeking Pre-Purchase Homebuyer Counseling – Client will be Mortgage Ready within 90 days"	Y	
7.a.3	<Count_Prepurchase_Homebuyer_Counsel_Readyafter_90/>	Sum of clients "Seeking Pre-Purchase Homebuyer Counseling – Client will be Mortgage Ready after 90 days and less than or equal to 180 days; entered debt management plan or some other type of long-term financial plan to prepare for homeownership"	Y	
7.a.4	<Count_Prepurchase_Homebuyer_Counsel_Longterm_Counseling/>	Sum of clients "Seeking Pre-Purchase Homebuyer Counseling – Receiving long term (greater than 180 days) pre-purchase counseling"	Y	
7.a.5	<Count_Prepurchase_Homebuyer_Counsel_Lease_Purchase_Prog/>	Sum of clients "Seeking Pre-Purchase Homebuyer Counseling – Entered lease purchase program"	Y	
7.a.6	<Count_Prepurchase_Homebuyer_Counsel_Prepurchase_Nopurchase/>	Sum of clients "Seeking Pre-Purchase Homebuyer Counseling – Decided Not to purchase housing; no further effort to prepare needed"	Y	
7.a.7	<Count_Prepurchase_Homebuyer_Counsel_Prepurchase_Withdrew/>	Sum of clients "Seeking Pre-Purchase Homebuyer Counseling - Withdrew from counseling"	Y	
7.a.8	<Count_Prepurchase_Homebuyer_Counsel_Other/>	Sum of clients "Seeking Pre-Purchase Homebuyer Counseling – Other"	Y	
	<Section_7a_Total/>	Section 7a Total	Y	
7.b.1	<Count_Prevent_Mortgage_Deliquency_Mortgage_Current/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency - Brought mortgage current"	Y	

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
7.b.2	<Count_Prevent_Mortgage_Deliquency_Mortgage_Refinanced/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency - Mortgage refinanced"	Y	
7.b.3	<Count_Prevent_Mortgage_Deliquency_Mortgage_Modified/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency - Mortgage modified"	Y	
7.b.4	<Count_Prevent_Mortgage_Deliquency_Second Mortgage_Received/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency - Received second mortgage"	Y	
7.b.5	<Count_Prevent_Mortgage_Deliquency_Repayment_Plan_Initiated/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency - Initiated forbearance agreement/repayment plan"	Y	
7.b.6	<Count_Prevent_Mortgage_Deliquency_Executed_Deed_Lieu/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency - Executed a deed-in-lieu"	Y	
7.b.7	<Count_Prevent_Mortgage_Deliquency_Sold_Property_Alternative/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency - Sold property/chose alternative housing solution"	Y	
7.b.8	<Count_Prevent_Mortgage_Deliquency_Pre_Foreclosure_Sale/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency – Pre-foreclosure sale"	Y	
7.b.9	<Count_Prevent_Mortgage_Deliquency_Mortgage_Foreclosed/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency – Mortgage foreclosed"	Y	
7.b.10	<Count_Prevent_Mortgage_Deliquency_Referred_to_Social_Serv/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency – Counseled and referred to another social service or emergency assistance agency"	Y	
7.b.11	<Count_Prevent_Mortgage_Deliquency_Partial_Claim_FHA_Lender/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency – Obtained partial claim loan from FHA lender"	Y	

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
7.b.12	<Count_Prevent_Mortgage_Deliquency_Bankcruptcy/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency – Bankruptcy"	Y	
7.b.13	<Count_Prevent_Mortgage_Deliquency_Debt_Manage_Plan/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency – Entered debt management plan"	Y	
7.b.14	<Count_Prevent_Mortgage_Deliquency_Referred_to_Legal/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency – Counseled and referred for legal assistance"	Y	
7.b.15	<Count_Prevent_Mortgage_Deliquency_Current_Foreclosure_Prevention/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency – Currently receiving foreclosure prevention/budget counseling"	Y	
7.b.16	<Count_Prevent_Mortgage_Deliquency_Withdrew/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency – Withdrew from counseling"	Y	
7.b.17	<Count_Prevent_Mortgage_Deliquency_Other/>	Sum of clients "Seeking Help with Resolving or Preventing Mortgage Delinquency – Other"	Y	
	<Section_7b_Total/>	Section 7b Total	Y	
7.c.1	<Count_HomeMaintenance_Fin_Management_HECM_Obtained/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Obtained a Home Equity Conversion Mortgage (HECM)"	Y	
7.c.2	<Count_HomeMaintenance_Fin_Management_HECM_Counseled/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Counseled on HECM; decided not to obtain mortgage"	Y	

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
7.c.3	<Count_HomeMaintenance_Fin_Management_Non_Reverse_Mortgage/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Obtained a non-FHA reverse mortgage"	Y	
7.c.4	<Count_HomeMaintenance_Fin_Management_Homeequity_Loan/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Received home equity or home improvement loan or other home repair assistance"	Y	
7.c.5	<Count_HomeMaintenance_Fin_Management_Consumer_Loan/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Received consumer loan (unsecured)"	Y	
7.c.6	<Count_HomeMaintenance_Fin_Management_Mortgage_Refinanced/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Mortgage refinanced"	Y	
7.c.7	<Count_HomeMaintenance_Fin_Management_Other_Social_Agency/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Counseled and referred to other social service agency"	Y	
7.c.8	<Count_HomeMaintenance_Fin_Management_Sold_House/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Sold house/chose alternative housing solution"	Y	
7.c.9	<Count_HomeMaintenance_Fin_Management_Complete_Budget_Counseling//>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Completed financial management/budget counseling"	Y	
7.c.10	<Count_HomeMaintenance_Fin_Management_Complete_Maintenance_counseling//>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Completed home maintenance counseling"	Y	

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
7.c.11	<Count_HomeMaintenance_Fin_Management_Utilities_Current/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Counseled and utilities brought current"	Y	
7.c.12	<Count_HomeMaintenance_Fin_Management_Legal_Assistance/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Counseled and referred for legal assistance"	Y	
7.c.13	<Count_HomeMaintenance_Fin_Management_Receiving_Counseling/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Currently receiving counseling"	Y	
7.c.14	<Count_HomeMaintenance_Fin_Management_Withdrew_Counseling/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Withdrew from counseling"	Y	
7.c.15	<Count_HomeMaintenance_Fin_Management_Other/>	Sum of clients "Seeking Help with Home Maintenance and Financial Management for Homeowners – Other"	Y	
	<Section_7c_Total/>	Section 7c Total	Y	
7.d.1	<Seeking_Help_Housing_Search_Assistance/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Received housing search assistance"	Y	
7.d.2	<Seeking_Help_Housing_Temp_Rental_Relief/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Obtained temporary rental relief"	Y	
7.d.3	<Seeking_Help_Housing_Referred_to_Rental_Assistance/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Counseled and referred to agency with rental assistance program"	Y	

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
7.d.4	<Seeking_Help_Housing_Recertification_Subsidy_Program/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Advised on recertification for HUD/other subsidy program"	Y	
7.d.5	<Seeking_Help_Housing_Referred_Other_Social_Agency/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Counseled and referred to other social service agency"	Y	
7.d.6	<Seeking_Help_Housing_Referred_Legal_Aid_Agency/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Counseled and referred to legal aid agency for fair housing assistance"	Y	
7.d.7	<Seeking_Help_Housing_Referred_Legal_Agency_Eviction/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Counseled and referred to legal agency for assistance with eviction"	Y	
7.d.8	<Seeking_Help_Housing_Found_Alternative_Housing/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Found alternative rental housing"	Y	
7.d.9	<Seeking_Help_Housing_Remain_Currenthousing/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Decided to remain in current housing situation"	Y	
7.d.10	<Seeking_Help_Housing_Resolved_Issue/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Resolved issue in current tenancy"	Y	
7.d.11	<Seeking_Help_Housing_Debt_Mngmt_Entered/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Entered debt management/repayment plan"	Y	

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
7.d.12	<Seeking_Help_Housing_Utilities_Current/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Counseled and utilities brought current"	Y	
7.d.13	<Seeking_Help_Housing_Security_Dep_Dispute/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Resolved security deposit dispute"	Y	
7.d.14	<Seeking_Help_Housing_Current_Counseled/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Currently receiving counseling"	Y	
7.d.15	<Seeking_Help_Housing_Withdrew_Counseling/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Withdrew from counseling"	Y	
7.d.16	<Seeking_Help_Housing_Other/>	Sum of clients "Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing – Other"	Y	
	<Section_7d_Total/>	Section 7d Total	Y	
7.e.1	<Count_Occupied_Emergency_Shelter/>	Sum of clients "Seeking Shelter or Services for the Homeless – Occupied emergency shelter"	Y	
7.e.2	<Count_Occupied_Transitional_Housing/>	Sum of clients "Seeking Shelter or Services for the Homeless – Occupied transitional housing"	Y	
7.e.3	<Count_Occupied_PermntHouse_RentAssist/>	Sum of clients "Seeking Shelter or Services for the Homeless - Occupied permanent housing with rental assistance"	Y	
7.e.4	<Count_Occupied_PermntHouse_wo_RentAssist/>	Sum of clients "Seeking Shelter or Services for the Homeless - Occupied permanent housing without rental assistance"	Y	

Form 9902 Position	XML Tag Name – 9902 Version 2006	XML Tag Definition	Value Required Y = Yes N = No	Dataset Version Comments
7.e.5	<Count_Counseled_Ref_Other_SocAgency/>	Sum of clients "Seeking Shelter or Services for the Homeless – Counseled Referred to other social service agency"	Y	
7.e.6	<Count_Remained_Homeless/>	Sum of clients "Seeking Shelter or Services for the Homeless – Remained homeless"	Y	
7.e.7	<Count_Currently_Receiving_Counsel/>	Sum of clients "Seeking Shelter or Services for the Homeless – Currently receiving counseling"	Y	
7.e.8	<Count_Withdrew_Counseling/>	Sum of clients "Seeking Shelter or Services for the Homeless - Withdrew from Counseling	Y	
7.e.9	<Count_Seek_Shelter_Other/>	Sum of clients "Seeking Shelter or Services for the Homeless – Other"	Y	
	<Section_7e_Total/>	Section 7e Total	Y	
	<Section_7a_e_Total/>	Sum of "Individual Counseling / Section 7 a – e Total"	Y	

Submission Type – Client Level Data

Client Level Data – Includes demographic and counseling data about the agency's client. It can only be submitted with 9902 and Agency Profile.

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.
<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.

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.

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Profile/>	Parent element defining a single client profile	Y	
<Client_ID_Num/>	Unique numeric identifier to identify a client within the CMS.	Y	
<Client_Case_Num/>	Agency's file number or case number assigned to the counseling service.	Y	Dataset 3.1.0.0 and higher only.
<Client_SSN1/>	Client's Social Security Number Format value as '123-45-6798'.	N	
<Client_SSN2/>	Client's Social Security Number last four digits only	N	
<Client_First_Name/>	Client's first name	Y	

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Last_Name/>	Client's last name	Y	
<Client_Middle_Name/>	Client's middle name (Middle Initial accepted)	N	
<Client_Street_Address_1/>	Client's street address prior to and at the beginning of counseling. If the value is not available default it to 'N/A'.	Y	
<Client_Street_Address_2/>	Client's street address 2 prior to and at the beginning of counseling.	N	
<Client_City/>	Client's City prior to and at the beginning of counseling	Y	
<Client_State/>	Client's state prior to and at the beginning of counseling Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	
<Client_Zip/>	Client's Zip Code prior to and at the beginning of counseling. The ZIP code may be provided in short '00000' or full '00000-0000' format.	Y	
<Client_New_Street_Address_1/>	Client's street address after counseling if different from before and up to receiving counseling. If the address is not available of not changed after counseling default it to same as <Client_Street_Address_1/>.	Y	Dataset 3.1.0.0 and higher only.
<Client_New_Street_Address_2/>	Client's street address after counseling if different from before and up to receiving counseling.	N	Dataset 3.1.0.0 and higher only.
<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 of not changed after counseling default it to same as <Client_City>	Y	Dataset 3.1.0.0 and higher only.

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<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>. Allowed values: Please refer to Section 2.2.9 concerning reference data retrieval using web services.	Y	Dataset 3.1.0.0 and higher only.
<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/>.	Y	Dataset 3.1.0.0 and higher only.
<Client_Phone_Num/>	Client's 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'	Y	In Dataset 4.0 a malformed phone number will result in a validation error.
<Client_Mobile_Phone_Num/>	Client's Mobile Phone number. If specified, must be properly formatted as follows: '999-999-9999'	N	
<Client_Fax/>	Client's fax number. If specified, must be properly formatted as follows: '999-999-9999'	N	
<Client_Email/>	Client's email address. Must be properly formatted as follows: 'xxx@xxx.xxx'.	N	
<Client_Family_Size/>	The number of individuals that live in the client's home. If the value is not available default it to '1' to represent a minimum family size.	Y	
<Client_Gender/>	Client's gender The Counselor is expected to make an effort in gender determination. Allowed values: 'F'/'M' (upper case)	Y	
<Client_Marital_Status/>	Client's marital status description Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. Use the code for "Unknown" if the value is not known.	Y	

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Race_ID/>	Client's race Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. Use the code for "Unknown" if the value is not known.	Y	
<Client_Ethnicity_ID/>	Client's ethnicity Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. Use the code for "Unknown" if the value is not known.	Y	
<Client_Household_Head/>	Household Head indicator. Indicator for whether the client files as the Head of Household on their taxes. Allowed values: 'Y'/'N' (upper case)	Y	Removed in Dataset 4.0
<Client_Head_of_Household_Type/>	The type of the household head. Possible values are: Single adult , Female-headed single parent household, Male-headed single parent household, Married without dependents, Married with dependents, Two or more unrelated adults, Other Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. Use the code for "Other" if the value is not known.	Y	Added for Dataset 4.0
<Client_Household_Gross_Monthly_Income/>	Household's gross monthly income. Integer numeric value only. Default value '0'	Y	
<Client_Birth_DT/>	Client's date of birth Format data as 'MM-DD-YYYY'. The year must be within the 19xx and 20xx range.	N	

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Counselor_ID/>	Identifies the Counselor's ID who provided assistance to the client. Refer to <cms_counselor_id/> element. This value MUST correlate to a valid counselor id already in the system.	Y	
<Client_Highest_Educ_Grade/>	Client's description of the highest education received Possible Values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. Use the code for "Unknown" if the value is not known.	Y	
<Client_Farm_Worker/>	Indicator of whether or not the client is a migrant farm worker Allowed values: 'Y'/ 'N' (upper case)	Y	
<Client_Colonias_Resident/>	Indicator of whether or not client is a Colonias Resident Allowed values: 'Y'/ 'N' (upper case)	Y	
<Client_HUD_Assistance/>	Type of additional HUD programs the client is receiving. If the value is not available default it to 'Not Applicable'. Must select a single value from list below: 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 Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Dataset 3.1.0.0 and higher.
<Client_Disabled/>	Indicator of whether or not the client is disabled Allowed values: 'Y'/ 'N' (upper case)	Y	
<Client_Dependents_Num/>	Describes number of individuals in the household that rely on client's support. If the value is not available default it to '0'.	Y	

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Intake_DT/>	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.	Y	
<Client_Counsel_Session_DT_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.	Y	
<Client_Counsel_Session_DT_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.	N	
<Client_Language_Spoken/>	The language spoken by the client If the value is not available default it to 'English'. Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	
<Client_Session_Duration/>	Client total session duration in minutes – all session minutes of the client per a single type of counseling.	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: Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Changed all enumerated types for Dataset 3.1.0.0
<Client_Counseling_Termination/>	The reason for counseling termination. A single value must be selected. Allowed Values: Please refer to Section 2.2.9 9 for reference to the web service to retrieve allowed values. Use the code for "Ongoing" if the value is not known.	Y	Dataset 3.1.0.0 and higher only.
<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'.	Y	Dataset 3.1.0.0 and higher only.

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Attribute_HUD_Grant/>	Indicates the type of HUD Housing Counseling Grant that was used to service the counseling case. Allowed Values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. If the value is not available default it to 'N/A'.	Y	Added for Dataset 3.1.0.0, replaces Client_Other_HUD_Funding.
<Client_Grant_Amount_Used>	Indicates how much HUD was billed for this particular client counseling. This data enables HUD to track how their grant money is used.	N	Added for Dataset 4.0
<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'.**	Y	
<Client_HECM_Certificate_Issue_Date/>	The date the HECM certificate takes effect. Format as 'MM-DD-YYYY'. The year must be within the 19xx and 20xx range.	N	Dataset 3.1.0.0 and higher only.
<Client_HECM_Certificate_Expiration_Date/>	The date the HECM certificate expires. Format as 'MM-DD-YYYY'. The year must be within the 19xx and 20xx range.	N	Dataset 3.1.0.0 and higher only.
<Client_HECM_Certificate_ID/>	The client HECM Certificate ID. The value must be numeric.	N	Dataset 3.1.0.0 and higher only.
<Client_Predatory_Lending/>	Indicator of whether or not the client is a victim of predatory lending practices Allowed values: Y/ N	Y	
<Client_Mortgage_Type/>	Indicates the client's mortgage type before counseling. Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. Use the code for "N/A" if the value is not known. .	Y	Added additional allowed values of 40 year fixed, 2 year ARM, and N/A
<Client_Mortgage_Type_After/>	Indicates the client's mortgage type after receiving counseling. Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. Use the code for "N/A" if the value is not known.	Y	Dataset 3.1.0.0 and higher only.

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Finance_Type_Before/>	Indicates the type of financing the client had prior to receiving counseling. Allowed Values **Numeric** **String** 6 N/A 8 FHA 9 VA 10 Conventional 11 USDA Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. If the value is not available default it to 'N/A'.	Y	Dataset 3.1.0.0 and higher only.
<Client_Finance_Type_After/>	Indicates the type of financing the client had after end of counseling. Allowed Values **Numeric** **String** 6 N/A 8 FHA 9 VA 10 Conventional 11 USDA Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. If the value is not available default it to 'N/A'.	Y	Dataset 3.1.0.0 and higher only.
<Client_FirstTime_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.	Y	Dataset 3.1.0.0 and higher only.
<Client_Discrimination_Victim/>	Indicator of whether the client is a victim of discrimination in housing Allowed values: Y/N Default value 'N'	Y	
<Client_Mortgage_Closing_Cost/>	Client's closing cost on the obtained mortgage Integer numeric value only.	N	
<Client_Mortgage_Interest_Rate/>	Client's mortgage interest rate. Numeric value with 3 digits after decimal point.	N	As of Dataset 4.0 the allowed pattern is XX.XXX.

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Intake_Loan_Type/>	Indicates type of intake loan client has. Possible values are specified in a reference table. Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Added for Dataset 4.0
<Client_Intake_Loan_Type_Is_Hybrid_ARM />	If type of Client Intake Loan is ARM, then this field is required. Indicate here that it is a Hybrid ARM loan. This is a boolean field taking 'Y' or 'N' as possible values.	N	Added for Dataset 4.0
<Client_Intake_Loan_Type_Is_Option_ARM />	If type of Client Intake Loan is ARM, then this field is required. Indicate here if it is Option ARM loan. This is a boolean field taking 'Y' or 'N' as possible values.	N	Added for Dataset 4.0
<Client_Intake_Loan_Type_Is_Interest_Only />	Indicate if Client Intake Loan is an interest-only loan. This is a boolean field taking 'Y' or 'N' as possible values.	N	Added for Dataset 4.0
<Client_Intake_Loan_Type_Is_FHA_Or_VA_Insured/>	Indicate if Client Intake Loan is FHA or VA Insured.	N	Added for Dataset 4.0
< Client_Intake_Loan_Type_Is_Privately Held/>	Indicates if Client Intake Loan is Privately Held. This is a boolean field taking a 'Y' or 'N' as possible values.	N	Added for Dataset 4.0
< Client_Intake_Loan_Type_Has_Interest_Rate_Reset/>	Indicates if Client Intake Loan has the interest rate reset. It is required if Client Intake Loan Type is ARM. This is a bollean field taking a 'Y' or 'N' as possible values.	N	Added for Dataset 4.0
<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>	Y	Added for Dataset 4.0
<Client_Second_Loan_Exists/>	Indicates if client has a second loan boolean. This field is a Boolean field, so if a second loan exists, you would specify 'Y', otherwise 'N'. This is required if value of <Client_Loan_Being_Reported> is "First".	N	Added for Dataset 4.0

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Referred_By/>	Indicates the source of reference the client learned about the program 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 Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. If the value is not available default it to 'N/A'.	Y	Added for Dataset 3.1.0.0. Replaces all yes and no data elements concerning client referral.
<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.	N	Updated for Dataset 3.1.0.0
<Client_Credit_Score/>	The client's FICO score from a major credit reporting agency	N	
<Client_Credit_Score_Source/>	If credit score is provided, then this field needs to be provided as well. It is the source of the credit score. Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	N	Added for Dataset 4.0
<Client_No_Credit_Score_Reason/>	If no credit score is provided, then specify the reason why. List of acceptable values specified in a reference table. Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	N	Added for Dataset 4.0
<Client_Job_Duration/>	Length of time on job in months. If the value is not available default it to '0'.	Y	

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Household_Debt/>	Monthly household liabilities. If the value is not available default it to '0'. Integer numeric value only.	Y	
<Client_Mortgage_Deliquency/>	Mortgage payments missed Allowed values: Y/N Default value 'N'	N	
<Client_Spouse_First_Name/>	Client's Spouse First Name	N	
<Client_Spouse_Last_Name/>	Client's Spouse Last Name	N	
<Client_Spouse_Middle_Name/>	Client's Spouse Middle Name	N	
<Client_Spouse_SSN/>	Client's Spouse SSN Format value as '123-45-6798'.	N	
<Client_Income_Level/>	The client's income level compared to the Average Medium Income (AMI) for the area. Allowed Values: **Numeric String** 2 < 50% of Area Median Income (AMI) 3 50 to 79% of AMI 4 80 to 100% of AMI 5 > 100% AMI 6 Chose not to respond Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Added for Dataset 3.1.0.0. Replaces all yes and no data elements concerning client income level.

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Prepurchase_Counsel/>	Related to section 7.a of the 9902 counseling. Client seeking pre-purchase homebuyer counseling and outcomes. If this field is provided, then the other section 7 client profile fields should be omitted. Allowed Values: **Numeric String** 2 Purchased Housing 3 Client will be mortgage ready within 90 days 4 Client will be Mortgage Ready after 90 Days; entered debt management plan or some other type of long-term financial plan to prepare for homeownership 5 Receiving long term pre-purchase counseling 6 Entered lease purchase program 7 Decided Not to purchase housing; no further effort to prepare needed 8 Withdrew from counseling 9 Other 10 N/A Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. If the value is not available default it to 'N/A'.	N	Added for Dataset 3.1.0.0. Replaces all yes and no data elements concerning clients who received Pre-Purchase counseling. For Dataset 4.0 this field is being replaced by the general Client_Purpose_Of_Visit

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Prevent_Mortgage_Delinquency/>	Related to section 7.b of the 9902 counseling.Client seeking help in resolving or preventing mortgage delinquency and outcome. If this field is provided, then the other section 7 client profile fields should be omitted. Allowed Values: **Numeric String** 2 Brought mortgage current 3 Mortgage refinanced 4 Mortgage modified 5 Received second mortgage 6 Initiated forbearance agreement/repayment plan 7 Executed a deed-in-lieu 8 Sold property/chose alternative housing solution 9 Pre-foreclosure sale 10 Mortgage foreclosed 11 Counseled and referred to another social service or emergency assistance agency 12 Obtained partial claim loan from FHA lender 13 Bankruptcy 14 Entered debt management plan 15 Counseled and referred for legal assistance 16 Currently receiving foreclosure prevention/budget counseling 17 Withdrew from counseling 18 Other 19 N/A Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. If the value is not available default it to 'N/A'.	N	Added for Dataset 3.1.0.0. Replaces all yes and no data elements concerning clients seeking counseling on mortgage delinquency prevention. For Dataset 4.0 this field is being replaced by the general Client_Purpose_Of_Visit

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Home_Maint_Fin_Mgmt/>	Related to section 7.c of the 9902 counseling. Client Seeking Help with Home Maintenance and Financial Management for Homeowners. If this field is provided, then the other section 7 client profile fields should be omitted. Allowed Values: **Numeric** **String** 2 Obtained a Home Equity Conversion Mortgage (HECM) 3 Counseled on HECM; decided not to obtain mortgage 4 Obtained a non-FHA reverse mortgage 5 Received home equity or home improvement loan or other home repair assistance 6 Received consumer loan (unsecured) 7 Mortgage refinanced 8 Counseled and referred to other social service agency 9 Sold house/chose alternative housing solution 10 Completed financial management/budget counseling 11 Completed home maintenance counseling 12 Counseled and utilities brought current 13 Counseled and referred for legal assistance 14 Currently receiving counseling 15 Withdrew from counseling 16 Other 17 N/A Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. If the value is not available default it to 'N/A'.	N	Added for Dataset 3.1.0.0. Replaces all yes and no data elements concerning clients counseled on Home Maintenance and Financial Management. For Dataset 4.0 this field is being replaced by the general Client_Purpose_Of_Visit

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Seeking_Help_Housing/>	Related to section 7.d of the 9902 counseling. Client Seeking Help in Locating, Securing, or Maintaining Residence in Rental Housing. If this field is provided, then the other section 7 client profile fields should be omitted. Allowed Values: **Numeric** **String** 2 Received housing search assistance 3 Obtained temporary rental relief 4 Counseled and referred to agency with rental assistance program 5 Advised on recertification for HUD/other subsidy program 6 Counseled and referred to other social service agency 7 Counseled and referred to legal aid agency for fair housing assistance 8 Counseled and referred to legal aid agency for assistance with eviction 9 Found alternative rental housing 10 Decided to remain in current housing situation 11 Resolved issue in current tenancy 12 Entered debt management/repayment plan 13 Counseled and utilities brought current 14 Resolved security deposit dispute 15 Currently receiving counseling 16 Withdrew from counseling 17 Other 18 N/A Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values. If the value is not available default it to 'N/A'.	N	Added for Dataset 3.1.0.0. Replaces all rental housing counseling client Yes and No data elements. For Dataset 4.0 this field is being replaced by the general Client_Purpose_Of_Visit

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Client_Occupied/>	Related to section 7.e of the 9902 counseling. Client Seeking Shelter or Services for the Homeless. If this field is provided, then the other section 7 client profile fields should be omitted. Allowed Values: **Numeric** **String** 2 Occupied emergency shelter 3 Occupied transitional housing 4 Occupied permanent housing with rental assistance 5 Occupied permanent housing without rental assistance 6 Counseled Referred to other social service agency 7 Remained homeless 8 Currently receiving counseling 9 Withdrew from counseling 10 Other 11 N/A Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.If the value is not available default it to 'N/A'.	N	Added for Dataset 3.1.0.0. Replaces all Yes and No data elements concerning homeless counseling clients. For Dataset 4.0 this field is being replaced by the general Client_Purpose_Of_ Visit
<Client_Purpose_Of_ Visit>	The purpose of the counseling visit. Possible values include Occupied, Seeking Help Housing, Home Maintenance Finance Mgmt, Prevent Mortgage Delinquency, Prepurchase Counsel Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Added for Dataset 4.0. Replaces individual purpose data fields. Purpose is specified in reference value.
<Client_Outcome_Of _Visit>	The outcome of the counseling session. Allowable values depend on Purpose Of Visit value. Use same reference tables as for Dataset 3.1.0.0.So if Purpose of Visit is Prepurchase Counsel, then use the prepurchase_counsel_ref table. Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Added for Dataset 4.0

Attendee Level – Data Elements

The following table lists and describes the HCS ARM XML tag names with the respective "Value Required" attribute and release comments for all attendee level data elements. Attendees are group session/workshop education participants.

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Attendee/>	Defines an attendee of a group session/educational workshop.	N	Dataset 3.1.0.0 only.
<attendee_id/>	Unique identifier that corresponds to an attendee_id in group_session element of same submission.	Y	Dataset 3.1.0.0 only.
<Attendee_fname/>	Attendee's first name. Check the session ID. All attendee must be connected to the group session.	Y	Dataset 3.1.0.0 only.
<Attendee_lname/>	Attendee's last name	Y	Dataset 3.1.0.0 only.
<Attendee_mname/>	Attendee's middle name	N	Dataset 3.1.0.0 only.
<Attendee_Fee_Amount/>	The amount client paid for course. If the value is not available default it to '0'. Integer numeric value only.	Y	Dataset 3.1.0.0 only Additional data format restriction. In 4.0 dataset, moved to group_session_attendee
<Attendee_Referred_By/>	Indicates the source of reference the attendee learned about the program Allowed Values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Dataset 3.1.0.0 only. In 4.0 dataset, moved to group_session_attendee

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Attendee_FirstTime_Home_Buyer/>	Indicator of whether the attendee is a first time home buyer before receiving education and is seeking to be a first time home buyer. Y/N Yes indicates the attendee has never previously owned a home. No indicates the attendee has previously owned a home.	Y	Dataset 3.1.0.0 only. In 4.0 dataset, moved to group_session_attendee
<Attendee_Address_1/>	Attendee's street address of residence	Y	Dataset 3.1.0.0 and 4.0 only
<Attendee_Address_2/>	Attendee's street address of residence	N	Dataset 3.1.0.0 and 4.0 only
<Attendee_City/>	Attendee's City of residence	Y	Dataset 3.1.0.0 and 4.0 only
<Attendee_State/>	Attendee's state of residence Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Dataset 3.1.0.0 and 4.0 only
<Attendee_Zip_Code/>	Attendee's Zip Code of residence. The ZIP code may be provided in short '00000' or full '00000-0000' format.	Y	Dataset 3.1.0.0 and 4.0 only
<Attendee_Race_ID/>	Attendee's race Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.Use the code for "Unknown" if value is not known.	Y	Dataset 3.1.0.0 and 4.0 only
<Attendee_Ethnicity_ID/>	Client's ethnicity Allowed values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.Use the code for "Unknown" if value is not known.	Y	Dataset 3.1.0.0 and 4.0 only

XML Tag Name – Client Data	XML Tag Description	Value Required Y = Yes N = No	Dataset Version Comments
<Attendee_Income_Level/>	Allowed Values: Please refer to Section 2.2.9 for reference to the web service to retrieve allowed values.	Y	Dataset 3.1.0.0 only. In 4.0 dataset, moved to group_session_attendee

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.

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

6.0 APPENDIX C: HCS ARM URL TO SUBMIT DATA

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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

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The arm_databag_3_x.xsd file with 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

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