

Date: 11/16/2020

Subject: HUD CMS Developer Alert: ARM Version 14.26.5.0

HUD CMS Developers:

ARM Version 14.26.5.0 – An updated version of the HCS ARM 5 Web Service (v.14.26.5.0) is now available on the ARM Pilot Server. It is anticipated that this release will be available on Production by 12/04/2020. The changes are described in the attached ARM F11M V14.26.5.0 Release Notes. This release includes changes related to the HUD OHC decision to cease collection of some sensitive data from Housing Counseling Agencies. At this time, the ARM changes should not require updates to CMS to continue to successfully submit quarterly reporting. The attached ARM F11M V14.26.5.0 Release Notes lists the fields that have been identified for removal. For more information on the phased approach to removing the specific data elements that will no longer be collected, please see: <https://www.hudexchange.info/programs/housing-counseling/cms/#reporting-requirements>.

An updated Interface Control Document (ICD) and Software Developers Kit (SDK) will be posted soon to the CMS Guidance page: <https://www.hudexchange.info/programs/housing-counseling/cms/#agency-reporting-module-armrequirements>.

Thank you,
Theresa
HUD HCS/ARM Support Team
theresa.m.houck@hud.gov

Release no later than date: 12/7/2020

ARM V14.26.5.0

Contents of the Release

Changes to Web Service Interface

None.

Changes to Databag XML Schema

1. arm-internal.xsd

Old: `<xs:element name="cmsVendorId" type="nonNegativeInt"/>`
 New: `<xs:element name="cmsVendorId" type="threeDigitNumber"/>`

Old: `<xs:element name="statusMessage">`
 `<xs:simpleType>`
 `<xs:restriction base="xs:string">`
 `<xs:pattern value="NOT FOUND"/>`
 `<xs:pattern value="RECEIVED"/>`
 `<xs:pattern value="PROCESSING"/>`
 `<xs:pattern value="DONE"/>`
 `<xs:pattern value="ERROR:[\s\S]*"/>`
 `</xs:restriction>`
 `</xs:simpleType>`
`</xs:element>`
 New: `<xs:element name="statusMessage" type="xs:string" />`

2. arm.xsd

Old: `<xs:element name="cmsVendorId" type="nonNegativeInt"/>`
 New: `<xs:element name="cmsVendorId" type="threeDigitNumber"/>`

Old: `<xs:element name="statusMessage">`
 `<xs:simpleType>`
 `<xs:restriction base="xs:string">`
 `<xs:pattern value="NOT FOUND"/>`
 `<xs:pattern value="RECEIVED"/>`
 `<xs:pattern value="PROCESSING"/>`
 `<xs:pattern value="DONE"/>`
 `<xs:pattern value="ERROR:[\s\S]*"/>`
 `</xs:restriction>`
 `</xs:simpleType>`
`</xs:element>`
 New: `<xs:element name="statusMessage" type="xs:string" />`

3. simpleTypes5.0.xsd

`<xs:simpleType name="maritalStatus">`
 Old: `<xs:restriction base="xs:int">`
 New: `<xs:restriction base="xs:byte">`

```
<xs:simpleType name="incomeLevel">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="referredBy">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="race">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="ethnicity">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="financeType">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="month">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="state">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="contactType">
Old:      <xs:restriction base="xs:long">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="educationLevel">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="counselingType">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="counselingTermination">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="mortgageType">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="hudGrantType">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="shortRefId">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="languageId">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="otherTrainingOrganization">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">

<xs:simpleType name="sponsorTrainingOrganization">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:byte">
```

```
<xs:simpleType name="sessionDuration">
Old:      <xs:restriction base="xs:int">
New:      <xs:restriction base="xs:short">
```

```
<xs:simpleType name="numericFieldValue">
Old:      <xs:totalDigits value="15" />
New:      <xs:totalDigits value="12" />
```

Old: - none -

New (added section):

```
<xs:simpleType name="byteFieldValue">
  <xs:restriction base="xs:byte">
    <xs:pattern value="(0)|([1-9][0-9]*)" />
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="shortFieldValue">
  <xs:restriction base="xs:short">
    <xs:pattern value="(0)|([1-9][0-9]*)" />
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="intFieldValue">
  <xs:restriction base="xs:int">
    <xs:pattern value="(0)|([1-9][0-9]*)" />
  </xs:restriction>
</xs:simpleType>
<xs:simpleType name="longFieldValue">
  <xs:restriction base="xs:long">
    <xs:pattern value="(0)|([1-9][0-9]*)" />
  </xs:restriction>
</xs:simpleType>
```

4. counselor_profile_databag_5_0.xsd

```
Old:      <xs:element name="Counselor_SSN" type="st:ssn"/>
New:      <xs:element name="Counselor_SSN" type="st:ssn" minOccurs="0" />
```

5. client_profile_databag_5_0.xsd

```
Old:      <xs:element name="Client_Family_Size" type="st:numericFieldValue" minOccurs="0" />
New:      <xs:element name="Client_Family_Size" type="st:byteFieldValue" minOccurs="0" />
```

```
Old:      <xs:element name="Client_Household_Gross_Monthly_Income" type="st:numericFieldValue" />
New:      <xs:element name="Client_Household_Gross_Monthly_Income" type="st:intFieldValue" minOccurs="0" />
```

```
Old:      <xs:element name="Client_Dependents_Num" type="st:numericFieldValue" />
New:      <xs:element name="Client_Dependents_Num" type="st:byteFieldValue" />
```

```
Old:      <xs:element name="Client_Session_Duration" type="st:numericFieldValue" />
New:      <xs:element name="Client_Session_Duration" type="st:intFieldValue" />
```

```
Old:      <xs:element name="Client_Counseling_Fee" type="st:numericFieldValue" minOccurs="0" />
New:      <xs:element name="Client_Counseling_Fee" type="st:intFieldValue" minOccurs="0" />
```

```
Old:      <xs:element name="Client_Mortgage_Closing_Cost" type="st:numericFieldValue" minOccurs="0" />
New:      <xs:element name="Client_Mortgage_Closing_Cost" type="st:intFieldValue" minOccurs="0" />
```

```
Old:      <xs:element name="Client_Mortgage_Closing_Cost" type="st:numericFieldValue" minOccurs="0" />
New:      <xs:element name="Client_Mortgage_Closing_Cost" type="st:intFieldValue" minOccurs="0" />
```

Old: <xs:element name="Client_Job_Duration" type="st:numericFieldValue" />
New: <xs:element name="Client_Job_Duration" type="st:shortFieldValue" minOccurs="0" />

Old: <xs:element name="Client_Credit_Score" type="st:numericFieldValue" minOccurs="0" />
New: <xs:element name="Client_Credit_Score" type="st:shortFieldValue" minOccurs="0" />

Old: <xs:element name="Client_Household_Debt" type="st:numericFieldValue" />
New: <xs:element name="Client_Household_Debt" type="st:intFieldValue" />

6. form_9902_databag_5_0.xsd

<xs:complexType name="form9902Field">
Old: <xs:extension base="st:numericFieldValue">
New: <xs:extension base="st:intFieldValue">

<xs:complexType name="Group_Session_Attendee">
Old: <xs:element name="Attendee_Fee_Amount" type="xs:nonNegativeInteger" />
New: <xs:element name="Attendee_Fee_Amount" type="st:intFieldValue" />

Changes to WSDL

ARM:

Old: <wsdl:documentation>ARM VERSION: 14.18.5.0</wsdl:documentation>
New: <wsdl:documentation>ARM VERSION: 14.26.5.0</wsdl:documentation>

ARMReference:

Old: <wsdl:documentation>ARM REFERENCE VERSION: 1.0.0.0 (with ARM VERSION 14.18.5.0)</wsdl:documentation>
New: <wsdl:documentation>ARM REFERENCE VERSION: 1.0.0.0 (with ARM VERSION 14.26.5.0)</wsdl:documentation>

Changes to SDK

None.

Changes to the Web Service Behavior

1. Update process to validate agency address to use latest version of HUD Geocode Service Center.
2. Excessive namespace information in error messages resulting from XML validation errors. Error messages are now much more readable.
3. Discontinue to store the following fields if submitted:

Counselor_Profile.Counselor_SSN (changed from required to optional)

Group_Session_Attendee.Attendee_Address_1

Group_Session_Attendee.Attendee_Address_2

Attendee.Attendee_FName

Attendee.Attendee_LName

Attendee.Attendee_Mname

Attendee.Attendee_Address_1

Attendee.Attendee_Address_2

Client_Profile.Client_SSN1

Client_Profile.Client_SSN2

Client_Profile.Client_First_Name

Client_Profile.Client_Last_Name

Client_Profile.Client_Middle_Name

Client_Profile.Client_Street_Address_1

Client_Profile.Client_Street_Address_2

Client_Profile.Client_New_Street_Address_1

Client_Profile.Client_New_Street_Address_2

Client_Profile.Client_Phone_Num

Client_Profile.Client_Mobile_Phone_Num

Client_Profile.Client_Fax

Client_Profile.Client_Email

Client_Profile.Client_Birth_DT

Client_Profile.Client_Household_Gross_Monthly_Income (changed from required to optional)

Client_Profile.Client_Job_Duration (changed from required to optional)

Client_Profile.Client_Spouse_First_Name

Client_Profile.Client_Spouse_Last_Name

Client_Profile.Client_Spouse_Middle_Name

Client_Profile.Client_Spouse_SSN

Bug Fixes

1. ARM responding with “500 – Server Error” message for the method **getSubmissionInfo** when a submission error text was very long. The error message has been shortened for clarity. A full error message text can be obtained, as before, by invoking the method **getDetailedErrorMessage**.
2. ARM responding with a generic error message when long numerals were used as IDs (such as Client_ID_Num, Client_Case_Num, CMS_Counselor_Id).

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3. ARM responding with a generic error message when a non-existent CMS ID was listed in the submission header.
4. CMS ID/Password validation is more robust and secure.
5. When multiple activity_type_ids are present in a Form 9902 submission, ARM expects elements to be in the same activity_type_id order. ARM has been updated to allow for elements to be listed in any activity_type_id order.

Advisories

1. The fields listed that are no longer being stored will be removed from the ARM dataset in ARM 6. ARM 6 is scheduled for implementation for FY 2022 reporting. Any submissions sent for ARM 6 that include these fields will not be processed.