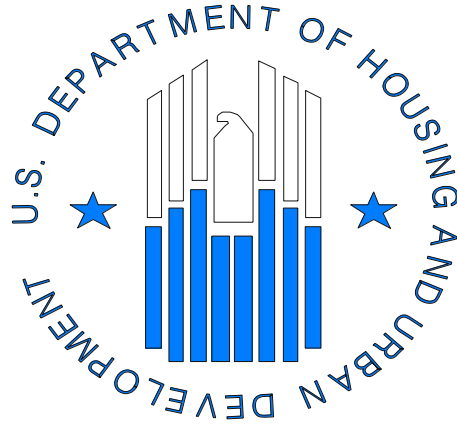


*US Department of Housing and Urban Development
Single Family Housing*



Developer's Guide

For

Total Scorecard

Final

| | |
|----------------|-----------------------------|
| System: | CHUMS |
| Subsystem: | AUS |
| Component: | [Component] |
| Releases: | 4.0 – SOAP MISMO (Final) |
| Document Type: | Developer's Guide |
| Document Date: | January 27, 2021 |

Table of Contents

- 1.0 INTRODUCTION TO TOTAL SCORECARD 1**
- 1.1 Purpose of TOTAL Scorecard Developer’s Guide 1
- 1.2 Overview of TOTAL Scorecard 1

- 2.0 GETTING STARTED 3**
- 2.1 Things to Consider 3
 - 2.1.1 Interface Data File Formats 3
 - 2.1.2 Communications Protocol 3
- 2.2 Building the TOTAL Scorecard Interface 3
 - 2.2.1 Data Mapping 3
- 2.3 Security Requirements and Recommendations 4

- 3.0 INTERFACE FILE DESCRIPTIONS 5**

- APPENDIX A – SCORECARD DATA ELEMENTS 1**

- APPENDIX B – SCORECARD ERROR CODES 1**

- APPENDIX C – SCORECARD REVIEW RULES 1**

- APPENDIX D – SCORECARD SCHEMAS AND WSDL 1**
- D-1 Schema 2
- D-2 WSDL 5

- APPENDIX E – REVISIONS 1**
- E.1 TOTAL Scorecard – Implementation Date December 1, 2003 2
- E.2 TOTAL Scorecard – Implementation Date October 22, 2003 2
- E.3 TOTAL Scorecard - Implementation Date October 6, 2004 3
- E.4 TOTAL Scorecard – Release of Version 1.2 - Implementation Date Dec 1, 2004 3
- E.5 TOTAL Scorecard – Release of Version 2.0 - Implementation Date July 14, 2008 3
- E.6 TOTAL Scorecard – Update to Version 2.0 - Implementation Date July 14, 2008 4

| | | |
|------|---|----|
| E.7 | TOTAL Scorecard – Release of Version 2.1 - Implementation Date October 1, 2008 | 4 |
| E.8 | TOTAL Scorecard – Update to Version 2.1 - Implementation Date Sept 1, 2009 | 5 |
| E.9 | TOTAL Scorecard – Release of Version 2.2 - Implementation Date October 4, 2010 | 5 |
| E.10 | TOTAL Scorecard – Release of Version 2.3 - Implementation Date October 4, 2010 | 5 |
| E.11 | TOTAL Scorecard – Update to Version 2.3 - Implementation Date Sept 24, 2010..... | 6 |
| E.12 | TOTAL Scorecard – Release of Version 2.4 - Implementation Date April 16, 2011..... | 6 |
| E.13 | TOTAL Scorecard – Release of Version 2.5 - Implementation Date March 4, 2012 | 6 |
| E.14 | TOTAL Scorecard – Release of Version 2.6 - Implementation Date April 8, 2012..... | 8 |
| E.15 | TOTAL Scorecard – Release of Version 2.7- Implementation Date June 11, 2012 | 8 |
| E.16 | TOTAL Scorecard – Release of Version 3.0 - Implementation Date July 21, 2012 | 8 |
| E.17 | TOTAL Scorecard – Release of Version 3.1 - Implementation Date March 2, 2013 | 9 |
| E.18 | TOTAL Scorecard – Release of Version 3.2 - Implementation Date March 30, 2013 | 9 |
| E.19 | TOTAL Scorecard – Release of Version 3.3 - Implementation Date June 1, 2013 | 10 |
| E.20 | TOTAL Scorecard – Release of Version 3.3 - Implementation Date June 28, 2013 | 10 |
| E.21 | TOTAL Scorecard – Release of Version 3.4 - Implementation Date Feb 15, 2014 | 10 |
| E.22 | TOTAL Scorecard – SOAP Version 3.4 – Implementation Date July 26, 2014 | 11 |
| E.23 | TOTAL Scorecard – SOAP MISMO Version 3.4 - Implementation Date Nov 8, 2014 | 11 |
| E.24 | TOTAL Scorecard – SOAP MISMO Version 3.4 - Implementation Date Nov 8, 2014 | 11 |
| E.25 | TOTAL Scorecard – Release of Version 3.5 - Implementation Date January 1, 2015 | 12 |
| E.26 | TOTAL Scorecard – Release of Version 3.6 - Implementation Date January 24, 2015 | 13 |
| E.27 | TOTAL Scorecard – Update to Counseling Type Definition - Implementation Date September 14, 2015... | 14 |
| E.28 | TOTAL Scorecard – Release of Version 3.7 - Implementation Date January 1, 2016..... | 15 |
| E.29 | TOTAL Scorecard – Updated Definitions, Removal of MIP Factors - Implementation Date June 11, 2016 . | 15 |
| E30. | TOTAL Scorecard – No System Update - Guide Updated June 24, 2016 - TOTAL Version 3.8, Effective August 22, 2016..... | 16 |
| E31. | TOTAL Scorecard – Review Rule 14 - Guide Updated September 8, 2016 - TOTAL Version 3.8, Effective August 22, 2016 | 17 |
| E32. | TOTAL Scorecard – Review Rule 10 - Guide Updated October 17, 2016 | 17 |

E33. TOTAL Scorecard – Release of Version 3.9 - Implementation Date January 1, 2017 17

E34. TOTAL Scorecard – Release of Version 3.11 - Implementation Date June 24, 2017 17

E35. TOTAL Scorecard – Release of Version 3.12 - Implementation Date January 1, 2018 21

E36. TOTAL Scorecard – Release of Version 3.13 - Implementation Date January 1, 2019 21

E.37. TOTAL Scorecard –Added MISMO 3.4 URLA -Implementation Date July 1, 2019 21

E38. TOTAL Scorecard – Release of Version 3.14 - Implementation Date March 16, 2019 21

E39. TOTAL Scorecard – Release of Version 3.15 - Implementation Date January 1, 2020 22

E40. TOTAL Scorecard – Release of Version 4.0 - Implementation Date January 1, 2021 22

E41. TOTAL Scorecard – Implementation Date February 3, 2021 22

1.0 Introduction to TOTAL Scorecard

1.1 Purpose of TOTAL Scorecard Developer's Guide

The TOTAL Scorecard Developer's Guide provides the necessary information to establish an interface between the FHA's TOTAL Scorecard and an Automated Underwriting System (AUS). This document is primarily aimed at the software development and maintenance staff supporting an AUS. The document contains the following sections:

- Section 1 - Introduction to TOTAL Scorecard includes an overview of TOTAL Scorecard.
- Section 2 - Getting Started describes communication protocols, tips on building your TOTAL Scorecard interface, and security requirements.
- Section 3 - Interface File Descriptions details XML file formats and error handling.
- Appendices – including the Scorecard Data Elements, Error Codes and the DTD.

The purpose of this guide is to provide technical guidance to Automated Underwriting System (AUS) providers who are or desire to be interfaced with FHA's TOTAL Mortgage Scorecard. This guide does not provide or imply credit policy guidance for FHA insuring.

For agency credit policies refer to:

Handbook 4000.1, FHA Single Family Housing Policy Handbook
<https://www.hud.gov/sites/documents/40001HSGH.PDF>

HUD Mortgagee Letters
https://www.hud.gov/program_offices/administration/hudclips/letters/mortgagee

For agency policies pertaining to the use of FHA's TOTAL Mortgage Scorecard, refer to:

Handbook 4000.1, FHA Single Family Housing Policy Handbook, Section II. A. 4. Underwriting the Borrower Using the TOTAL Mortgage Scorecard (TOTAL)
<https://www.hud.gov/sites/documents/40001HSGH.PDF>

Questions: Please address any questions about this Guide to the FHA Resource Center at 1-800-CALLFHA (1-800-225-5342). Persons with hearing or speech impairments may reach this number via TDD/TTY by calling 1-877-TDD-2HUD (877-833-2483)

1.2 Overview of TOTAL Scorecard

TOTAL Scorecard is a transaction-based system. The steps below describe the processing of loan information from the lender's AUS, to the TOTAL Scorecard, and back to the lender. These steps must be performed for each transaction processed through the TOTAL Scorecard.

1. Loan information is entered into the lender's AUS.
2. The lender requests an underwriting decision from the AUS.
3. The AUS pulls the borrower's credit and applies eligibility rules.
4. The AUS calls the TOTAL Scorecard
5. The AUS examines the TOTAL Scorecard results along with other criteria to provide an underwriting decision.

NOTES:

2.0 Getting Started

This section is designed to assist AUS developers (management and staff) in planning the organization's interface to the TOTAL Scorecard.

The following topics are outlined in this section:

- **Things to Consider** - There are decisions that the AUS developer must take into consideration when developing the TOTAL Scorecard interface.
- **Building the TOTAL Scorecard Interface** - There are steps that the AUS developer must follow with regard to implementation of these requirements, whether it be for initial or subsequent use. Most steps are likely to already be part of your system development process.
- **Security Requirements and Recommendations** - There are general rules and requirements that apply to the AUS developer when interfacing with the TOTAL Scorecard which directly impact system and data-related security.

2.1 Things to Consider

This section provides some key points for your consideration in the planning and development of the TOTAL Scorecard interface.

2.1.1 Interface Data File Formats

The TOTAL Scorecard uses Extensible Markup Language (XML). XML uses tags that define the data elements. The TOTAL Scorecard WSDL and Schemas are included in Appendix D in this document. The TOTAL Scorecard call is made using Simple Object Access Protocol (SOAP) Web Services. For further information regarding interface file descriptions, refer to section 3 of this manual. The SOAP call will be secured via SSL using HTTPS.

2.1.2 Communications Protocol

The communications protocol for TOTAL Scorecard is SOAP. The SOAP call to the TOTAL Scorecard will be secured using HTTPS.

The HTTPS communications protocol provides two layers of data protection.

- The HTTPS communications protocol requires that a certificate reside on the server. This certificate must be issued by a trusted certificate authority. This ensures that the user is communicating with the TOTAL Scorecard and not some third party trying to spoof the TOTAL Scorecard's IP address.
- The HTTPS protocol encapsulates standard Hyper Text Transfer Protocol (HTTP) within the Secure Socket Layer (SSL). SSL is a universally accepted mechanism for securing data in transit across the Internet. SSL provides a very secure data encryption mechanism.

2.2 Building the TOTAL Scorecard Interface

2.2.1 Data Mapping

The first aspect in developing of the TOTAL Scorecard interface is reviewing the data and formats required by the TOTAL Scorecard. The AUS developer must map each of the TOTAL Scorecard XML data elements to the corresponding data element(s) in the AUS. A field-by-field matrix is the suggested method for accomplishing this data mapping.

Through the data mapping process, you are able to identify:

- **Data elements that are currently available within your system** - This set of data elements should not require a significant

effort in the process of developing the interface.

- **Data elements that are available but values must be re-mapped or calculated** - These data elements require re-mapping of the values within your system to the values that TOTAL Scorecard requires.
- **Data elements that are unavailable in your system** - The AUS must be modified to capture these additional data elements, utilizing new or existing screens.

2.3 Security Requirements and Recommendations

TOTAL Scorecard's security requirements and recommendations adhere to the standards that have been established by the Automated Data Processing Security Office at HUD. All TOTAL Scorecard transactions are required to have the following:

- **User ID** – up to ten alphanumeric characters; and
- **Password** – up to ten alphanumeric characters.

User IDs and passwords are sent as part of the SOAP Header. User IDs will be issued to partners as they are ready to begin developing their calls to the TOTAL Scorecard.

3.0 Interface File Descriptions

The AUS interfacing with the TOTAL Scorecard must be able to build TOTAL Scorecard standard XML data for a given Scorecard request. This XML will be transmitted via a SOAP request. This section details the format of both the SOAP Request and Response Objects.

The SOAP Request and Response objects are defined by the XML Schema and Web Service Definition Language (WSDL) shown in Appendix D.

Please note: All data must be properly represented in XML. There are five entity reference substitutions which are shown below. If any data is submitted that contains any of these characters, the proper entity reference should be included in the XML or that field must be identified as unparsed character data.

| Entity | Character | Entity Reference |
|-------------------|-----------|------------------|
| Ampersand | & | & |
| Greater Than Sign | > | > |
| Less Than Sign | < | < |
| Quote | “ | " |
| Apostrophe | ‘ | ' |

For example, if a data field contained the following value “A & B Construction” the data would have to be represented as such:

<mytag>A & B Construction</mytag>

Or

<mytag> <![CDATA[A & B Construction]] </mytag>

Many credit reports contain these characters. It is a good practice to automatically identify all credit reports as unparsed character data.

NOTES:

APPENDIX A – Scorecard Data Elements

Appendix A – Scorecard Data Elements

| | Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|----|---|---|--|------|-----------|-----------------------|--------------------------------|--|---|-------------------|
| 1 | Applicant(s) combined monthly income | The sum, in whole dollars, of the applicant(s) Base Employment Income, Overtime, Bonuses, Commissions, Dividends/Interest, Net Rental Income, and Other Income for all applicants. | 999999 | 6 | Scorecard | I | Scoring | URLA, Section 1b, 1c, 1e, plus net rental income | Must be > 0 | monthly_income |
| 2 | Appraised value, if available | "As Is" or "Subject To/After-Improved Value from the URAR (Uniformed Residential Appraisal Report) in whole dollars. For 203(k) loans, provide the "Subject To/After-Improved" value. | 9999999 | 7 | Scorecard | I | Scoring | Property Appraisal or estimate | If entered, must be between 0 and 9,999,999 | appraised_value |
| 3 | Assets after closing (must allow for negative amounts) | Assets available (post-closing) in whole dollars including gifts. | 999999 | 6 | Scorecard | I | Scoring | URLA, Verified liquid assets Section 2a., 2b, 4d less down payment, borrower paid closing costs (less financed UFMIP), debts to be paid. | Any value is ok | assets_after_clsg |
| 4 | FHA case number | FHA case number from FHA Connection | 999-9999999 Optionally can be formatted as any of the following: 999999999 999-9999999-999 9999999999999 | 11 | Scorecard | I | Scoring | FHA Connection | If entered, must pass check digit routine. | fha_case_number |
| 5 | Loan amount including financed Upfront Mortgage Insurance Premium (MIP) | Sum of the base loan amount and portion of the Upfront MIP that is being financed in whole dollars. | 9999999 | 7 | Scorecard | I | Scoring | URLA, Section L4, Line I | Must be > 0 | loan_amount |
| 6 | Monthly payment, including Principal, Interest, Taxes, and Insurance | Monthly payment, including Principal, Interest, Taxes, Insurance, association/project dues in dollars and cents. Interest Rate should be based on Underwriting Interest Rate. | 99999.99 | 8 | Scorecard | I | Scoring | URLA, Section L3 | Must be > 0 and < 15000 | piti |
| 7 | Financed Upfront Mortgage Insurance Premium | The portion of the Upfront MIP that is being financed. | 99999.99 | 8 | Scorecard | I | Scoring | URLA, Section L4, Line I | Any non-negative value is ok | mip |
| 8 | Mortgage term in months (e.g., 180 months, 360 months) | Number of Months in mortgage term | 999 | 3 | Scorecard | I | Scoring | URLA, Section L3 | Must be > 47 and must be < 361 | term |
| 9 | Sales price | Sales contract price for purchase transactions. | 9999999 | 7 | Scorecard | I | Scoring | URLA, Section L4, Line A. | If entered, must be between 0 and 9,999,999 | sale_price |
| 10 | Social Security Number for SSN1 | Social Security Number stated on the URLA for SSN1. | 999999999 | 9 | Scorecard | I | Scoring | URLA, Section 1a | Must be a valid ssn | ssn |

| | Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|----|--|--|-------------------|------|------------|-----------------------|--------------------------------|------------------------------------|---------------------------------|-----------------------|
| 11 | Social Security Number for SSN2 | Social Security Number stated on the URLA for SSN2. | 999999999 | 9 | Scorecard | I | Scoring | URLA, Section 1a | If entered, must be a valid ssn | ssn |
| 12 | Social Security Number for SSN3 | Social Security Number stated on the URLA for SSN3. | 999999999 | 9 | Scorecard | I | Scoring | URLA, Section 1a | If entered, must be a valid ssn | ssn |
| 13 | Social Security Number for SSN4 | Social Security Number stated on the URLA for SSN4. | 999999999 | 9 | Scorecard | I | Scoring | URLA, Section 1a | If entered, must be a valid ssn | ssn |
| 14 | Social Security Number for SSN5 | Social Security Number stated on the URLA SSN5. | 999999999 | 9 | Scorecard | I | Scoring | URLA, Section 1a | If entered, must be a valid ssn | ssn |
| 15 | Total number of applicants | Total number of applicants stated on the URLA. Total number of applicants must equal total SSN's/FICO entered. | 9 | 1 | Scorecard | I | Scoring | URLA, Section 1a | Must be > 0 and must be < 6 | applicants |
| 16 | Unique identification for loan application assigned by AUS | Identification number assigned by the AUS scoring the loan. | char(16) | 16 | Scorecard | I | Scoring | AUS Vendor | Must be a valid identifier | loan_number |
| 17 | Loan-To-Value Ratio | Loan Amount (Base Mortgage Amount) without Upfront MIP divided by the adjusted value of the property. For 203(k) loans, divide by the 203(k) calculated value (See 3D on the 203(k) calculator). | 999.99 | 6 | Scorecard | I | Scoring | 92900-LT, , Mortgage Information | Must be 0.1 to 125 | ltv |
| 18 | Front-End Ratio | The projected monthly principal, interest, taxes, and insurance payment divided by the gross monthly income of all borrowers. | 999.99999 | 9 | Scorecard | I | Scoring | 92900-LT, Underwriting Information | Must be > 0 and must be < 101 | front_end_ratio |
| 19 | Back-End Ratio | Housing plus other debt divided by monthly income | 999.99999 | 9 | Scorecard | I | Scoring | 92900-LT, Underwriting Information | Must be > 0 and must be < 101 | back_end_ratio |
| 20 | Loan Indicator | Defines type of loan. "A" for Adjustable Rate Mortgages "B" for Temporary Buydowns, or space for all other loans. | "A", "B" or Space | 1 | Scorecard | I | Scoring | URLA, Section L3 | Must be "A", "B", or a Space | amort_type |
| 21 | Underwriting P&I | P&I to be used for underwriting purposes. Should be adjusted for ARMs whose LTV is 95% or greater to coincide with Underwriting Interest Rate adjustment. Should be adjusted for Buydowns to coincide with Buydown Interest Rate. Should match Contract P&I for all other loans. | 99999.99 | 8 | Scorecard | I | Scoring | See HUD Handbook 4000.1, URLA L3 | Must be > 0 and < 15000 | underwriting_pi |
| 22 | Contract P&I | Principal and Interest payment based on contract interest rate. | 99999.99 | 8 | Additional | I | CHUMS | Based on Proposed Note Rate | Must be > 0 and < 150000 | contract_pi |
| 23 | Underwriting Interest Rate | Interest rate to be used for underwriting purposes. Should be adjusted upward 1 point for ARMs whose LTV is 95% or greater. Should match the Buydown Interest Rate for Buydowns. Should match Contract Interest Rate for all other loans. See Handbook 4000.1 | 99.999 | 6 | Scorecard | I | Scoring | See HUD Handbook 4000.1, URLA L3 | Must be > 0 | underwriting_interest |
| 24 | Contract Interest Rate | Contract interest rate on URLA | 99.999 | 6 | Additional | I | CHUMS | Proposed Note Rate | Must be > 0 | contract_interest |
| 25 | Borrower Age for SSN1 | Borrower Age stated in Section 3 of 1003 for SSN1. | 99 | 2 | Additional | I | CHUMS | URLA, Section 1a | Any value is ok | borr_age |

| Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|--------------------------|-------------------------|--|----------------------------|-----------|-----------------------|--------------------------------|---------------------------|--------------------|---------------------|
| 26 | Borrower Age for SSN2 | Borrower Age stated in Section 3 of 1003 for SSN2. | 99 | 2 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_age |
| 27 | Borrower Age for SSN3 | Borrower Age stated in Section 3 of 1003 for SSN3. | 99 | 2 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_age |
| 28 | Borrower Age for SSN4 | Borrower Age stated in Section 3 of 1003 for SSN4. | 99 | 2 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_age |
| 29 | Borrower Age for SSN5 | Borrower Age stated in Section 3 of 1003 for SSN5. | 99 | 2 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_age |
| 30 | Borrower Marital Status | Borrower Marital Status for primary borrower. 1-married, 2-separated, 3-unmarried | 9 | 1 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_marital_status |
| 31 | Borrower Name for SSN1 | Borrower Name for SSN1 stated in Section 3 of 1003. | Last Name, First Name M.I. | 22 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_name |
| 32 | Borrower Name for SSN2 | Borrower Name for SSN2 stated in Section 3 of 1003. | Last Name, First Name M.I. | 22 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_name |
| 33 | Borrower Name for SSN3 | Borrower Name for SSN3 stated in Section 3 of 1003. | Last Name, First Name M.I. | 22 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_name |
| 34 | Borrower Name for SSN4 | Borrower Name for SSN4 stated in Section 3 of 1003. | Last Name, First Name M.I. | 22 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_name |
| 35 | Borrower Name for SSN5 | Borrower Name for SSN5 stated in Section 3 of 1003. | Last Name, First Name M.I. | 22 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_name |
| 36 | Borrower Race for SSN1 | Borrower Race for SSN1 stated in Section 10 of 1003. 0-Not Applicable, 1-White, 2-Black or African American, 3-American Indian or Alaska Native, 4-Asian, 5-Native Hawaiian or Other Pacific Islander, 9-Not Disclosed. Note – This field may appear multiple times in a single Borrower Container | char(1) | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_race |
| 37 | Borrower Race for SSN2 | Borrower Race for SSN2 stated in Section 10 of 1003. 0-Not Applicable, 1-White, 2-Black or African American, 3-American Indian or Alaska Native, 4-Asian, 5-Native Hawaiian or Other Pacific Islander, 9-Not Disclosed. Note – This field may appear multiple times in a single Borrower Container | char(1) | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_race |

| Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|--------------------------|------------------------|--|---------|-----------|-----------------------|--------------------------------|-----------------------------|--------------------|------------------|
| 38 | Borrower Race for SSN3 | Borrower Race for SSN3 stated in Section 10 of 1003. 0–Not Applicable, 1-White, 2-Black or African American, 3-American Indian or Alaska Native, 4-Asian, 5-Native Hawaiian or Other Pacific Islander, 9–Not Disclosed. Note – This field may appear multiple times in a single Borrower Container | char(1) | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_race |
| 39 | Borrower Race for SSN4 | Borrower Race for SSN4 stated in Section 10 of 1003. 0–Not Applicable, 1-White, 2-Black or African American, 3-American Indian or Alaska Native, 4-Asian, 5-Native Hawaiian or Other Pacific Islander, 9–Not Disclosed. Note – This field may appear multiple times in a single Borrower Container | char(1) | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_race |
| 40 | Borrower Race for SSN5 | Borrower Race for SSN5 stated in Section 10 of 1003. 0–Not Applicable, 1-White, 2-Black or African American, 3-American Indian or Alaska Native, 4-Asian, 5-Native Hawaiian or Other Pacific Islander, 9–Not Disclosed. Note – This field may appear multiple times in a single Borrower Container | char(1) | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_race |
| 41 | Borrower Sex for SSN1 | Borrower Sex for SSN1 stated in Section 3 of 1003. 1-Male, 2-Female | char(1) | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_sex |
| 42 | Borrower Sex for SSN2 | Borrower Sex for SSN2 stated in Section 3 of 1003. 1-Male, 2-Female | char(1) | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_sex |
| 43 | Borrower Sex for SSN3 | Borrower Sex for SSN3 stated in Section 3 of 1003. 1-Male, 2-Female | char(1) | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_sex |
| 44 | Borrower Sex for SSN4 | Borrower Sex for SSN4 stated in Section 3 of 1003. 1-Male, 2-Female | char(1) | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_sex |
| 45 | Borrower Sex for SSN5 | Borrower Sex for SSN5 stated in Section 3 of 1003. 1-Male, 2-Female | char(1) | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_sex |

| Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|--------------------------|------------------------------|---|------------|-----------|-----------------------|--------------------------------|--------------------------------|--------------------|------------------|
| 46 | Borrower Ethnicity for SSN1 | Borrower Ethnicity for SSN1. Is borrower Hispanic or Latino? If borrower is Hispanic or Latino, the answer is "Y." | "Y" or "N" | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_ethnicity |
| 47 | Borrower Ethnicity for SSN2 | Borrower Ethnicity for SSN2. Is borrower Hispanic or Latino? If borrower is Hispanic or Latino, the answer is "Y." | "Y" or "N" | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_ethnicity |
| 48 | Borrower Ethnicity for SSN3 | Borrower Ethnicity for SSN3. Is borrower Hispanic or Latino? If borrower is Hispanic or Latino, the answer is "Y." | "Y" or "N" | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_ethnicity |
| 49 | Borrower Ethnicity for SSN4 | Borrower Ethnicity for SSN4. Is borrower Hispanic or Latino? If borrower is Hispanic or Latino, the answer is "Y." | "Y" or "N" | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_ethnicity |
| 50 | Borrower Ethnicity for SSN5 | Borrower Ethnicity for SSN5. Is borrower Hispanic or Latino? If borrower is Hispanic or Latino, the answer is "Y." | "Y" or "N" | 1 | Additional | I | CHUMS URLA, Section 7 | Any value is ok | borr_ethnicity |
| 51 | Borrower Birth Date for SSN1 | Borrower Birth Date for SSN1 | Yyyymmdd | 8 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_birth_date |
| 52 | Borrower Birth Date for SSN2 | Borrower Birth Date for SSN2 | Yyyymmdd | 8 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_birth_date |
| 53 | Borrower Birth Date for SSN3 | Borrower Birth Date for SSN3 | Yyyymmdd | 8 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_birth_date |
| 54 | Borrower Birth Date for SSN4 | Borrower Birth Date for SSN4 | Yyyymmdd | 8 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_birth_date |
| 55 | Borrower Birth Date for SSN5 | Borrower Birth Date for SSN5 | Yyyymmdd | 8 | Additional | I | CHUMS URLA, Section 1a | Any value is ok | borr_birth_date |
| 56 | First time home buyer (FTHB) | First Time Home Buyer status. Submit "N" if none of the borrowers had an ownership interest in another property in the last three years. If not, select "Y". If any borrower is a FTHB, the answer is "Y." | char(1) | 1 | Scorecard | I | Scoring URLA, Section 5a. A | "Y" or "N" | first_time_buyer |
| 57 | Loan purpose | 1-Purchase an existing house, previously occupied 2-Finance improvements to an existing property 3-Refinance 4-Purchase a new condo unit 5-Purchase an existing condo unit 6-Purchase existing home, not previously occupied 7-Construct home – proceeds to be paid out during construction | char(2) | 2 | Additional | I | CHUMS URLA, Section L1 | Any value is ok | loan_purpose |
| 58 | Property address | Property street address | Char(60) | 60 | Additional | I | CHUMS URLA, Section 4a | Any value is ok | prop_address |
| 59 | Property city | Property city name. | Char(17) | 17 | Additional | I | CHUMS URLA, Section 4a | Any value is ok | prop_city |

| | Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|----|--------------------------------------|--|-----------------|------|------------|-----------------------|--------------------------------|---|---|--------------------|
| 60 | Property state | Property state abbreviation | Char(2) | 2 | Additional | I | CHUMS | URLA, Section 4a | Any value is ok | prop_state |
| 61 | Property zip code | Property zip code | Char(9) | 9 | Additional | I | CHUMS | URLA, Section 4a | Any value is ok | prop_zip |
| 62 | Property county code | Property FIPS county code. | Numeric(3) | 3 | Additional | I | CHUMS | URLA, Section 4a | Any value is ok | prop_county |
| 63 | Self-employed indicator for borrower | Is borrower self-employed? If any borrower is self-employed, the answer is "Y." | "Y" or "N" | 1 | Additional | I | CHUMS | URLA, Section 1c | Any value is ok | self_employ |
| 64 | Veteran indicator for borrower | Is borrower a Veteran? If any borrower is a Veteran, the answer is "Y." | "Y" or "N" | 1 | Additional | I | CHUMS | URLA, Section 1a | Any value is ok | veteran |
| 65 | Borrower's Paid Closing Costs | The closing costs that the borrower actually pays (Total closing costs less allowable closing costs paid by the seller or other interested third party on behalf of the borrower). This amount does not include Upfront Mortgage Insurance Premium (UFMIP) | 999999 | 6 | Scorecard | I | CHUMS | URLA, Section L4., Line F less Line L (seller credits). | Must be between \$0 and 20% of the Appraised Value. | borrow_cls_g_costs |
| 66 | Borrower Type | 1-Occupant 2-Landlord (Removed options that are not applicable) | 1-digit numeric | 1 | Additional | I | CHUMS | URLA, Section 4a | Any value is ok | borrow_type |
| 67 | Current Housing Expenses | Sum of borrower's current monthly housing expenses such as rent or mortgage payments, insurance, taxes, etc. | 99999.99 | 7 | Scorecard | I | CHUMS | URLA, Section 1a if Renting or no primary housing expense; Section 3a if own current residence. | 0 to 99,999.99 | monthly_expense |
| 68 | Energy Efficient Mortgage Indicator | Is there an energy efficient mortgage indicator? | "Y" or "N" | 1 | Additional | I | CHUMS | See HUD Handbook 4000.1 URLA, Section L1 | Any value is ok | Eem |
| 69 | First Payment Date | Month and Year of first payment | YYYYMM | 8 | Additional | I | CHUMS | CHUMS Insurance Screen | Any value is ok | first_pay_date |
| 70 | Gift letter amount | Total amount of all Gift(s) in whole dollars | 999999 | 6 | Scorecard | I | CHUMS | URLA, Section 4d | 0 to 999,999 | gift_amt |

| | Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|----|---|---|-----------------|------|------------|-----------------------|--------------------------------|---|--|------------------|
| 71 | Gift letter source | Source of Gift 00 - N/A 01 - Relative 03 - Government Assistance 06 - Employer/Other 15 - Nonprofit/Religious/Community – Non-Seller Funded If there are multiple gifts, provide the source of the largest donor. | 99 | 2 | Scorecard | I | CHUMS | URLA, Section 4d | "00", "01", "03", "06", "15", or blank. | gift_source |
| 72 | Number of Dependents for borrowers | Total number of dependents for borrowers | 99 | 2 | Additional | I | CHUMS | URLA, Section 1a | Any value is ok | dependents |
| 73 | Total Borrower Contribution (Required Investment) | Borrower's investment into the transaction. Includes borrower's contribution toward down payment, closing costs & prepaids (excluding UFMIP). If the loan is a refinance and the borrower is receiving cash back, the amount should be a negative number. | 999999 | 6 | Scorecard | I | CHUMS | URLA, Section L4 | Lower Bound: Negative Loan Amount Upper Bound: 999999 | req_invest |
| 74 | Solar energy indicator | Is there a solar energy indicator? | "Y" or "N" | 1 | Additional | I | CHUMS | See HUD Handbook 4000.1 URLA, Section L1 | Any value is ok | solar |
| 75 | Total cash requirements | Total combined cash to close the mortgage. | 999999 | 6 | Additional | I | CHUMS | Form HUD-92900-LT, Borrower Funds to Close; | Any value is ok | total_req |
| 76 | Years at Current Job for SSN1 | Years at current job for SSN1 | 2-digit numeric | 2 | Additional | I | CHUMS | URLA, Section 1b. | Any value is ok | years_at_job |
| 77 | Years Renting for borrower | Greatest number of years renting for any borrower | 2-digit numeric | 2 | Additional | I | CHUMS | URLA, Section 1a | Any value is ok | years_renting |

| Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|--------------------------|---|--|------------|-----------|-----------------------|--------------------------------|---|---|------------------|
| 78 | Total Closing Costs | Total closing costs of the transaction (this amount does not include UFMIP) | 999999 | 6 | Scorecard | I | CHUMS URLA, Section L4, Line F (less UFMIP) - Includes Closing Costs Paid by Seller/Others | If Purchase and Sale Price is at least \$35,000: 0 to 20% Sale Price. If Refinance and Appraised Value is at least \$35,000: 0 to 20% Appraised Value Otherwise, must be greater than or equal to zero. | clsg_costs |
| 79 | Unpaid Principle Balance (for refinances) | Amount of principal due on first loan | 999999 | 7 | Additional | I | CHUMS URLA, Section 4b | Any value is ok | unpaid_balance |
| 80 | Mortgage Basis (field is no longer used.) | Total cost to the buyer, including the buyer's share of any repairs, alterations, and additions to the property and the closing costs, contract price, and existing debt being refinanced, but excluding prepaids. | 999999 | 7 | Additional | I | CHUMS Insurance Screen | Any value is ok | mortgage_basis |
| 81 | Assets Available | Total assets available for closing, including cash, savings bonds, and securities. | 999999 | 6 | Additional | I | CHUMS URLA, Sections 2a & 2b, 4d (Gifts not deposited) | Any value is ok | assets_avail |
| 82 | Total Fixed Payment | Sum of borrower's total fixed monthly expenses such as the mortgage payment, insurance, taxes, fees, and other recurring charges, including all monthly payment debts and housing debts. | 999999 | 6 | Scorecard | I | CHUMS URLA, Section L3 Proposed Monthly Payment plus monthly liabilities Section 2c & 2d plus negative rental income (Section 3) | 0 to Monthly Income | total_fixed |
| 83 | Counsel Type | Indicates if the borrower completed homebuyer counseling. "A"- No HUD Approved Counseling, "D" – HUD Approved Counseling Agency | "A" or "D" | 1 | Scorecard | I | Scoring URLA, Section L5 | "A" or "D" | counsel_type |
| 84 | Closing Date | Date loan was settled or closed. | Yymmdd | 6 | Additional | I | CHUMS Insurance Screen | Any value is ok | closing_date |
| 85 | Maturity Date | Date of last mortgage payment. | Yyyymm | 6 | Additional | I | CHUMS Insurance Screen | Any value is ok | maturity_date |
| 86 | Buydown Interest Rate | Initial interest rate paid by borrower as a result of temporary rate buydown. To be used for underwriting purposes. | 99.999 | 6 | Additional | I | CHUMS URLA, Section L3 | Must be > 0 | buydown_interest |

| | Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|----|----------------------------|--|------------------------|-----------|----------------------|-----------------------|--------------------------------|----------------------------------|--|-------------------------|
| 87 | Secondary Financing Amount | Amount of financing provided, other than the first mortgage that creates a lien against the subject property (even if the debt may be forgiven by the provider of the funds). If there is secondary financing from multiple sources, this amount must include the total from all sources. | 999999 | 6 | Scorecard (Required) | I | CHUMS | URLA, Section 4b | 0 to 999999. May not be blank. | secondary_financing_amt |
| 88 | Secondary Financing Source | Type of entity providing secondary financing 00 - N/A 02 - Nonprofit (not Instrumentality of Government) 03 - Private Organizations/Eligible Individuals 04 - Lender 07 - Government - State or Local 08 - Nonprofit Instrumentality of Government 09 - Family / Relative 10 - Federal Government If there is secondary financing from multiple sources, select the source from the highest amount. | 99 | 2 | Additional | I | CHUMS | URLA, Section 4b | Any valid value or blank is ok | secondary_financing_src |
| 89 | EEM Escrow Amount | Amount held in escrow for energy efficient improvements. | 999999 | 6 | Additional | I | CHUMS | CHUMS Escrow Closeout Screen | Any value is ok | em_escrow_amt |
| 90 | Seller Concessions | The amount the seller and/or interested third party contributes toward the buyer's closing costs, prepaid expenses, discount points, UFMP, and Interest Rate Buydowns. | 999999 | 6 | Scorecard | I | CHUMS | URLA, Section L4 Line L, Line M. | 0 to 20% * Sale Price. | seller_concessions |
| 91 | Credit Report Type | Designates format of the Credit Report Data | Char(10) | 10 | Scorecard | I | Scoring | Credit Report | Must be a supported Credit Report Type. Please contact Single Family Housing for a current list of supported Credit Report Types | creditreporttype |
| 92 | Credit Report Data | Raw Credit Report | Unlimited Alphanumeric | Unlimited | Scorecard | I | Scoring | Credit Report | Any value is ok | creditreportdata |
| 93 | Lender ID | Code to Identify the originator making the underwriting request. If there are two FHA-approved lenders in the transaction, the ID for the originating lender should be included in the Lender ID field and the ID for the underwriting lender should be included in the Sponsor ID field. If the originating lender is not FHA-approved, the Lender ID field should be left blank. The ID for the FHA-approved underwriting lender should be included in the Sponsor ID field and the EIN for the originating lender should be included in the Sponsored Originator EIN field. | Char(10) | 20 | Scorecard | I | Scoring | FHA | Must be a valid FHA 10 digit lender ID | lender_id |

| | Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|-----|--------------------------|--|------------------|------|------------|-----------------------|--------------------------------|---|--|----------------------|
| 94 | Sponsor ID | Code to identify the FHA ID of the underwriting lender if they are acting in conjunction with an FHA approved originating lender or acting as a sponsor for a non-FHA lender. Optional if an FHA-approved lender is identified in the Lender ID field and is performing both the originating and underwriting function on the transaction. | Char(10) | 20 | Scorecard | I | Scoring | FHA | If entered, must be a valid FHA 10 digit lender ID | sponsor_id |
| 95 | Version | The version of the TOTAL Scorecard used during the initial underwriting decision of the loan application. This should match the version output from the TOTAL Scorecard during the initial submission of the loan application to the TOTAL Scorecard. Should be blank for the initial submission of a loan application. | Char(11) | 11 | Scorecard | I | Scoring | Version output from the initial submission of the loan to the TOTAL Scorecard | Any value is ok | version |
| 96 | Down Payment | The difference between the sales price of the property and the mortgage amount excluding any financed closing costs or mortgage insurance premiums. | 999999 | 6 | Scorecard | I | CHUMS | URLA, Section L4 Line A. Sales Price minus Line I. Base Loan Amount | 0 to 150%(Sales Price – (Mortgage Amount – MIP)) Should be 0 for refinance | down_payment |
| 97 | Base Mortgage Amount | Mortgage amount prior to adding any financed closing costs or any upfront mortgage insurance premium, or any combination. | 9999999 | 7 | Additional | I | CHUMS | URLA, Section L4, Line I | Any value is ok | base_mortgage_amount |
| 98 | Base LTV | Base mortgage amount divided by the lesser of the appraised value or sales price of the property (Adjusted Value) | 999.99 | 6 | Additional | I | CHUMS | Calculated | Any value is ok | base_LTV |
| 99 | Manufactured Housing | Indicator for specifying whether the dwelling is a manufactured (mobile) home. | "Y" or "N" | 1 | Additional | I | CHUMS | URLA, Section 4a | Any value is ok | manufactured_housing |
| 100 | Number of Living Units | Number of separate dwellings. For example, a two-family house has 2 living units. | 99 | 2 | Additional | I | CHUMS | URLA, Section 4a, No. of Units | Any value is ok | living_units |
| 101 | ARM Type | Type of ARM 1 – 1 Year Arm H – Hybrid Arm N – Not an ARM | "1", "H", or "N" | 1 | Additional | I | CHUMS | URLA, Section L3 | Any value is ok | ARM_type |
| 102 | Refinance Type | "C" – Conventional "N" - Not Refinance "R" - Prior FHA "S" - Streamline Refinance "A" – Cash-Out "O" – No-Cash-Out | Char(1) | 1 | Scorecard | I | Scoring | URLA, Section L1 | Any valid value is OK | refinance_type |

| | Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|---------------------------------|---|---|--|-----------|-----------|-----------------------|--------------------------------|------------------|---|---|
| 103 | Sponsored Originator EIN | The Employer Identification Number (EIN) for the originating lender that is sponsored by an FHA-approved lender. Optional if an FHA-approved lender is identified in the Lender ID field. Note: If the AUS is unable to send the Sponsored Originator EIN, the AUS is allowed to send 6999609996 in the Lender ID field and leave this field blank. That value will indicate to TOTAL Scorecard the loan is originated by a Sponsored Originator. | 999999999 Optionally can be formatted as: 99-9999999 | 9 | Scorecard | I | Scoring | URLA, Section 8 | If entered, must be a valid EIN on the CHUMS Sponsored Originator List. | EmployerIdentificationNumber attribute from the LOAN_ORIGINATOR |
| 104 | Condominium Indicator | Condo/Not a Condominium(Y/N) | "Y" or "N" | 1 | Scorecard | I | CHUMS | URLA, Section L1 | "Y", "N", or blank | condo_ind |
| 105 | Loan Application Type | Designates format of the Loan Application Data | Char(15) | 15 | Scorecard | I | Scoring | Loan Application | Must be a supported Loan Application Type. MISMOAUS2.3.1 MISMOAUS2.4 FannieMaeRLD3.2 MISMO3.3 MISMO3.4 | loanapptype |
| 106 | Loan Application Data | Loan Application Data | Unlimited Alphanumeric | Unlimited | Scorecard | I | Scoring | Loan Application | Loan Application Data in the format specified by the Loan Application Type | loanappdata |
| Output Variables Follow: | | | | | | | | | | |
| 1 | Number of review rules/credit overrides that were triggered | The number of review rules/credit overrides that were triggered (0-5). | 99 | 2 | Scorecard | O | Scoring | N/A | N/A | NumReviews |
| 2 | Error Code | Error codes derived during the validation process; error codes are returned comma delimited (Example: 166, 300, 325) | Char(50) | 50 | Scorecard | O | Scoring | N/A | N/A | Errcde |
| 3 | Array containing the ID of the review rules triggered | Comma delimited field with codes indicating which review rules were triggered. Please see Appendix C for the list of Review Rules. | 99,99 | 30 | Scorecard | O | Scoring | N/A | N/A | ReviewRules |
| 4 | Post-review rules Accept or Refer decision | Accept/Refer decision. Takes into account algorithm score, review rules and credit overrides. | "A," "R," or "U" | 1 | Scorecard | O | Scoring | N/A | N/A | PostReview |
| 5 | Pre-review rules Accept or Refer decision | Accept/Refer based only on algorithm score. | "A," "R," or "U" | 1 | Scorecard | O | Scoring | N/A | N/A | PreReview |
| 6 | Borrower1 FICO | FICO score for Borrower1 | 9999 | 4 | Scorecard | O | Scoring | Credit Report | N/A | LFico |
| 7 | Borrower2 FICO | FICO score for Borrower2 | 9999 | 4 | Scorecard | O | Scoring | Credit Report | N/A | LFico |

| | Scorecard Table Elements | Definition | Format | Size | Data Type | Input or Output? * | Required for Scoring/ CHUMS | Source | Scoreable Criteria | DTD Element Name |
|----|--|---|-----------|------|-----------|-----------------------|--------------------------------|------------------|--------------------|------------------|
| 8 | Borrower3 FICO | FICO score for Borrower3 | 9999 | 4 | Scorecard | O | Scoring | Credit Report | N/A | LFico |
| 9 | Borrower4 FICO | FICO score for Borrower4 | 9999 | 4 | Scorecard | O | Scoring | Credit Report | N/A | LFico |
| 10 | Borrower5 FICO | FICO score for Borrower5 | 9999 | 4 | Scorecard | O | Scoring | Credit Report | N/A | LFico |
| 11 | Social Security Number for Borrower1 | Social Security Number Borrower1. | 999999999 | 9 | Scorecard | O | Scoring | URLA, Section 1a | N/A | ssn |
| 12 | Social Security Number for Borrower2 | Social Security Number for Borrower2. | 999999999 | 9 | Scorecard | O | Scoring | URLA, Section 1a | N/A | ssn |
| 13 | Social Security Number for Borrower3 | Social Security Number for Borrower3. | 999999999 | 9 | Scorecard | O | Scoring | URLA, Section 1a | N/A | ssn |
| 14 | Social Security Number for Borrower4 | Social Security Number Borrower4. | 999999999 | 9 | Scorecard | O | Scoring | URLA, Section 1a | N/A | ssn |
| 15 | Social Security Number for Borrower5 | Social Security Number for Borrower5. | 999999999 | 9 | Scorecard | O | Scoring | URLA, Section 1a | N/A | ssn |
| 16 | Repository for selected FICO for Borrower1 | The Credit Repository which provided the FICO reported from the scorecard. | Char(20) | 20 | Scorecard | O | Scoring | Credit Report | N/A | repository |
| 17 | Repository for selected FICO for Borrower2 | The Credit Repository which provided the FICO reported from the scorecard. | Char(20) | 20 | Scorecard | O | Scoring | Credit Report | N/A | repository |
| 18 | Repository for selected FICO for Borrower3 | The Credit Repository which provided the FICO reported from the scorecard. | Char(20) | 20 | Scorecard | O | Scoring | Credit Report | N/A | repository |
| 19 | Repository for selected FICO for Borrower4 | The Credit Repository which provided the FICO reported from the scorecard. | Char(20) | 20 | Scorecard | O | Scoring | Credit Report | N/A | repository |
| 20 | Repository for selected FICO for Borrower5 | The Credit Repository which provided the FICO reported from the scorecard. | Char(20) | 20 | Scorecard | O | Scoring | Credit Report | N/A | repository |
| 21 | Version | The Version of the TOTAL Scorecard used during this scorecard submission. | Char(11) | 11 | Scorecard | O | Scoring | N/A | N/A | Version |
| 22 | Unique identification for loan application assigned by AUS | Identification number assigned by the AUS scoring the loan. | char(16) | 16 | Scorecard | O | Scoring | AUS Vendor | N/A | loan_number |
| 23 | County Limits (1 Unit) | The One Unit FHA Mortgage Limit for the county associated with the TOTAL Scorecard Version. Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard. | 9999999 | 7 | Scorecard | O | Scoring | N/A | N/A | limit1 |
| 24 | County Limits (2 Unit) | The Two Unit FHA Mortgage Limit for the county associated with the TOTAL Scorecard Version. Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard. | 9999999 | 7 | Scorecard | O | Scoring | N/A | N/A | limit2 |
| 25 | County Limits (3 Unit) | The Three Unit FHA Mortgage Limit for the associated with the TOTAL Scorecard Version. Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard. | 9999999 | 7 | Scorecard | O | Scoring | N/A | N/A | limit3 |
| 26 | County Limits (4 Unit) | The Four Unit FHA Mortgage Limit for the county Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard. | 9999999 | 7 | Scorecard | O | Scoring | N/A | N/A | limit4 |

APPENDIX B – Scorecard Error Codes

Appendix B - Scorecard Error Codes

| ERROR CODES | ERROR MESSAGES |
|-------------|--|
| 001 | The TOTAL Scorecard server was not set up correctly |
| 004 | One SSN must be entered |
| 005 | SSN1 is not valid |
| 006 | SSN2 is not valid |
| 007 | SSN3 is not valid |
| 008 | SSN4 is not valid |
| 009 | SSN5 is not valid |
| 010 | SSN2 is required |
| 011 | SSN3 is required |
| 012 | SSN4 is required |
| 235 | A zero FICO Score is only permitted for one applicant |
| 240 | One FICO Score is required when only one applicant |
| 290 | Invalid FHA Case Number |
| 300 | Applicant(s) combined monthly income must be greater than 0 |
| 305 | Appraised Value must be between \$0 and \$9,999,999. |
| 310 | Loan amount including MIP must be greater than 0 |
| 315 | Monthly payment, including Principal, Interest, Taxes and Insurance, must be greater than \$0 and less than \$15,000 |
| 316 | Refinance Type must be a valid value. |
| 320 | Mortgage Insurance Premium cannot be less than 0 |
| 325 | Mortgage term in months must be between 48 and 360 |
| 330 | Sale price must be between \$0 and \$9,999,999. |
| 335 | Either Appraised Value or Sale Price is required |
| 340 | Total number of applicants must be between 1 and 5 |
| 345 | Total number of applicants does not match number of SSNs entered |
| 350 | Unique identification for AUS must be entered |
| 355 | Unique identification for loan application assigned by AUS must be entered |
| 360 | Loan-To-Value Ratio must be between 0.1 and 125 |
| 365 | Front End Ratio must be greater than 0 and less than or equal to 100 |
| 370 | Back End Ratio must be greater than 0 and less than or equal to 100 |
| 372 | Back End Ratio must be greater than or equal to Front End Ratio |
| 375 | Underwriting P&I must be greater than \$0 and less than \$15,000 |
| 380 | Underwriting Interest must be greater than 0 |
| 385 | Either Lender ID or Sponsored Originator EIN is required |
| 386 | Both Lender ID and Sponsored Originator EIN not allowed. Please submit either Lender ID or Sponsored Originator EIN. |

| ERROR CODES | ERROR MESSAGES |
|-------------|---|
| 387 | Sponsored Originator EIN is invalid. Sponsored Originator EIN must be nine numeric digits. |
| 388 | Sponsored Originator EIN is invalid. Sponsored Originator EIN must be in the CHUMS Sponsored Originator list. |
| 390 | Lender ID must contain 10 digits |
| 391 | Invalid Lender ID - Please ensure lender ID is entered correctly. If it is entered correctly, please contact Lender Approval Division at (202)708-3976. |
| 392 | Lender ID is not active |
| 393 | Sponsor ID is required |
| 394 | Sponsor ID must contain 10 digits |
| 395 | Invalid Sponsor ID |
| 396 | Sponsor ID is not active |
| 397 | Both Lender ID and Sponsor ID cannot be mortgagee type 4 |
| 398 | Lender ID is not certified through FHA Connection Certification Screen |
| 399 | Sponsor ID is not certified through FHA Connection Certification Screen |
| 400 | Credit Report is required |
| 405 | Each Credit Report must include a Credit Report Type and a Credit Report Data |
| 415 | First Time Homebuyer must be "Y" or "N" |
| 420 | Counsel Type is not valid |
| 425 | Current Housing Expense must be between \$0 and \$99,999.99 |
| 430 | Gift Letter Amount must be between \$0 and \$999,999 |
| 435 | Gift Letter Source must be "00", "01", "03", "06", or "15" |
| 436 | Secondary Financing amount must be provided (zero or greater). |
| 437 | If Secondary Financing Source is provided, it must be a valid value or blank. |
| 440 | Required Investment must greater than the Negative Loan Amount |
| 445 | Required Investment must be less than or equal to \$999,999 |
| 450 | Down Payment is required |
| 465 | Total Fixed Payment must be between \$0 and Monthly Income |
| 470 | Condo Indicator must be "Y" or "N" |
| 475 | Total Closing Costs cannot exceed 20% Sale Price on a purchase. Total Closing Costs cannot exceed 20% Appraised Value on a refinance |
| 480 | Seller Concession Amount must be between \$0 and 20% of the Sales Price |
| 485 | Borrower Closing Costs must be between \$0 and 20% of the Appraised Value. |
| 490 | Gift Letter Amount must be greater than zero when Gift Letter Source is not "N/A" |
| 495 | Gift Letter Source cannot be "N/A" when Gift Letter Amount is greater than zero |
| 500 | Citizenship is required for all borrowers |
| 505 | Citizenship must be "USCitizen", "PermanentResidentAlien" or "NonPermanentResidentAlien" |
| 510 | Full borrower address including street address, city, state, and postal code are required for all borrowers |

| ERROR CODES | ERROR MESSAGES |
|-------------|---|
| 515 | Invalid State Abbreviation for Borrower 1 current address |
| 520 | Invalid State Abbreviation for Borrower 2 current address |
| 525 | Invalid State Abbreviation for Borrower 3 current address |
| 530 | Invalid State Abbreviation for Borrower 4 current address |
| 535 | Invalid State Abbreviation for Borrower 5 current address |
| 540 | Invalid Zip Code for Borrower 1 current address |
| 545 | Invalid Zip Code for Borrower 2 current address |
| 550 | Invalid Zip Code for Borrower 3 current address |
| 555 | Invalid Zip Code for Borrower 4 current address |
| 560 | Invalid Zip Code for Borrower 5 current address |
| 565 | Partial employment address information provided for borrower 1. If any employment information is provided then the following data items are required: Name, Address, City, State, Zip Code, Phone, Position, Years on job, and Self Employment Indicator Please note: this error is temporarily suspended until a future date |
| 570 | Partial employment address information provided for borrower 2. If any employment information is provided then the following data items are required: Name, Address, City, State, Zip Code, Phone, Position, Years on job, and Self Employment Indicator Please note: this error is temporarily suspended until a future date |
| 575 | Partial employment address information provided for borrower 3. If any employment information is provided then the following data items are required: Name, Address, City, State, Zip Code, Phone, Position, Years on job, and Self Employment Indicator Please note: this error is temporarily suspended until a future date |
| 585 | Partial employment address information provided for borrower 4. If any employment information is provided then the following data items are required: Name, Address, City, State, Zip Code, Phone, Position, Years on job, and Self Employment Indicator Please note: this error is temporarily suspended until a future date |
| 590 | Partial employment address information provided for borrower 5. If any employment information is provided then the following data items are required: Name, Address, City, State, Zip Code, Phone, Position, Years on job, and Self Employment Indicator Please note: this error is temporarily suspended until a future date |
| 595 | Invalid State Name for Borrower 1 employment |
| 600 | Invalid State Name for Borrower 2 employment |
| 610 | Invalid State Name for Borrower 3 employment |
| 615 | Invalid State Name for Borrower 4 employment |
| 620 | Invalid State Name for Borrower 5 employment |
| 625 | Invalid Zip Code for Borrower 1 employment |
| 630 | Invalid Zip Code for Borrower 2 employment |
| 635 | Invalid Zip Code for Borrower 3 employment |
| 640 | Invalid Zip Code for Borrower 4 employment |
| 645 | Invalid Zip Code for Borrower 5 employment |
| 650 | Borrower 1 Self Employment Indicator should be True or False |
| 655 | Borrower 2 Self Employment Indicator should be True or False |

| ERROR CODES | ERROR MESSAGES |
|-------------|--|
| 660 | Borrower 3 Self Employment Indicator should be True or False |
| 665 | Borrower 4 Self Employment Indicator should be True or False |
| 670 | Borrower 5 Self Employment Indicator should be True or False |
| 675 | Years on Current Job or Months on Current Job for Borrower 1 must be numeric and greater than zero if employment is indicated Please note: this error is temporarily suspended until a future date |
| 680 | Years on Current Job or Months on Current Job for Borrower 2 must be numeric and greater than zero if employment is indicated Please note: this error is temporarily suspended until a future date |
| 685 | Years on Current Job or Months on Current Job for Borrower 3 must be numeric and greater than zero if employment is indicated Please note: this error is temporarily suspended until a future date |
| 690 | Years on Current Job or Months on Current Job for Borrower 4 must be numeric and greater than zero if employment is indicated Please note: this error is temporarily suspended until a future date |
| 695 | Years on Current Job or Months on Current Job for Borrower 5 must be numeric and greater than zero if employment is indicated Please note: this error is temporarily suspended until a future date |
| 700 | Partial listing real estate agent information supplied. If any listing real estate agent information is provided both First Name and Last Name of the listing real estate agent are required |
| 710 | Listing real estate agent information is not allowed on a refinance. |
| 715 | Partial selling real estate agent information supplied. If any selling real estate agent information is provided both First Name and Last Name of the selling real estate agent are required |
| 720 | Selling real estate agent information is not allowed on a refinance. |
| 725 | Partial closing agent information supplied. If any closing agent information is provided both First Name and Last Name of the closing agent are required |
| 730 | Partial notary information supplied. If any notary information is provided both First Name and Last Name of the notary are required |
| 735 | Partial seller information supplied. If any seller information is provided both First Name and Last Name of the seller are required |
| 745 | Invalid lender loan originator State |
| 755 | Invalid broker loan originator State |
| 765 | Invalid broker company State |
| 770 | Partial gift donor information supplied. If any gift donor information is provided both First Name and Last Name of the gift donor are required |
| 775 | Partial loan processor information supplied. If any loan processor information is provided both First Name and Last Name of the loan processor are required |
| 780 | Partial landlord information supplied. If any landlord information is provided both First Name and Last Name of the landlord are required |
| 785 | Loan Application Data is Required |
| 790 | Invalid Loan Application Type |
| 795 | Invalid Loan Application Data |
| 800 | Multiple Loan Applications were submitted. Only one Loan Application is allowed |

| ERROR CODES | ERROR MESSAGES |
|-------------|---|
| 999 | The TOTAL Scorecard experienced an unexpected error while processing. One example that would cause this to occur is if the Web server was unable to open a connection to the database server. This should be very rare. |

APPENDIX C – Scorecard Review Rules

Appendix C – Scorecard Review Rules

| | |
|----|---|
| 01 | Front End Ratio is too high |
| 02 | Back End Ratio is too high |
| 04 | Recent Foreclosure |
| 05 | Recent Bankruptcy |
| 06 | Late Mortgage Payments |
| 07 | Ineligible for FHA financing based on values submitted to TOTAL – See Upfront Premiums Chart |
| 08 | Ineligible for FHA financing based on values submitted to TOTAL unless the loan is 203(h) or complies with Mortgagee Letter 2010-23 'FHA Refinance of Borrowers in Negative Equity Positions' |
| 09 | Current Housing Expense exceeds Monthly Income |
| 11 | Seller Concession Amount exceeds 6% of Sale Price |
| 12 | At least one 30-day late Mortgage Payment in recent history – Applies only to Cash Out Refinance |
| 13 | At least one borrower with no available credit score |
| 14 | The lowest median FICO score is less than 620 and the Back-End Ratio (DTI) is greater than 43.00. (Applies only to Versions 3.2 through 3.7) |
| 15 | Required Investment is less than zero and the loan is a purchase transaction. |

APPENDIX D – Scorecard Schemas and WSDL

D-1 Schema

```

<?xml version="1.0" encoding="UTF-8"?>
<schema attributeFormDefault="unqualified"
elementFormDefault="qualified"
targetNamespace="http://xmlns.oracle.com/F17CTOTALScorecard/F17CTOTALScorecard/F17CTOTALScorecard"
xmlns="http://www.w3.org/2001/XMLSchema"
xmlns:tda="http://xmlns.oracle.com/F17CTOTALScorecard/F17CTOTALScorecard/F17CTOTALScorecard">
<element name="process">
  <complexType>
    <sequence>
      <element name="monthly_income" type="string" default="0" minOccurs="0"/>
      <element name="appraised_value" type="string" default="0" minOccurs="0"/>
      <element name="assets_after_clsg" type="string" default="0" minOccurs="0"/>
      <element name="fha_case_number" type="string" default="0" minOccurs="0"/>
      <element name="loan_amount" type="string" default="0" minOccurs="0"/>
      <element name="piti" type="string" default="0" minOccurs="0"/>
      <element name="mip" type="string" default="0" minOccurs="0"/>
      <element name="term" type="string" default="0" minOccurs="0"/>
      <element name="sale_price" type="string" default="0" minOccurs="0"/>
      <element name="applicants" type="string" default="0" minOccurs="0"/>
      <element name="loan_number" type="string" minOccurs="0"/>
      <element name="Itv" type="string" default="0" minOccurs="0"/>
      <element name="front_end_ratio" type="string" default="0" minOccurs="0"/>
      <element name="back_end_ratio" type="string" default="0" minOccurs="0"/>
      <element name="amort_type" type="string" minOccurs="0"/>
      <element name="underwriting_pi" type="string" default="0" minOccurs="0"/>
      <element name="contract_pi" type="string" default="0" minOccurs="0"/>
      <element name="underwriting_interest" type="string" default="0" minOccurs="0"/>
      <element name="contract_interest" type="string" default="0" minOccurs="0"/>
      <element name="borr_marital_status" type="string" default="0" minOccurs="0"/>
      <element name="first_time_buyer" type="string" minOccurs="0"/>
      <element name="loan_purpose" type="string" default="0" minOccurs="0"/>
      <element name="prop_address" type="string" minOccurs="0"/>
      <element name="prop_city" type="string" minOccurs="0"/>
      <element name="prop_state" type="string" minOccurs="0"/>
      <element name="prop_zip" type="string" minOccurs="0"/>
      <element name="prop_county" type="string" default="0" minOccurs="0"/>
      <element name="self_employ" type="string" minOccurs="0"/>
      <element name="veteran" type="string" minOccurs="0"/>
      <element name="borr_clsg_costs" type="string" default="0" minOccurs="0"/>
      <element name="borr_type" type="string" default="0" minOccurs="0"/>
      <element name="monthly_expense" type="string" default="0" minOccurs="0"/>
      <element name="eem" type="string" minOccurs="0"/>
      <element name="first_pay_date" type="string" default="0" minOccurs="0"/>
      <element name="gift_amt" type="string" default="0" minOccurs="0"/>
      <element name="gift_source" type="string" default="0" minOccurs="0"/>
      <element name="dependents" type="string" default="0" minOccurs="0"/>
      <element name="req_invest" type="string" default="0" minOccurs="0"/>
      <element name="solar" type="string" minOccurs="0"/>
      <element name="total_req" type="string" default="0" minOccurs="0"/>
      <element name="years_at_job" type="string" default="0" minOccurs="0"/>
      <element name="years_renting" type="string" default="0" minOccurs="0"/>
      <element name="clsg_costs" type="string" default="0" minOccurs="0"/>
      <element name="unpaid_balance" type="string" default="0" minOccurs="0"/>
    
  


```

```

<element name="mortgage_basis" type="string" default="0" minOccurs="0"/>
<element name="assets_avail" type="string" default="0" minOccurs="0"/>
<element name="total_fixed" type="string" default="0" minOccurs="0"/>
<element name="counsel_type" type="string" minOccurs="0"/>
<element name="closing_date" type="string" default="0" minOccurs="0"/>
<element name="maturity_date" type="string" default="0" minOccurs="0"/>
<element name="buydown_interest" type="string" default="0" minOccurs="0"/>
<element name="secondary_financing_amt" type="string" default="0" minOccurs="0"/>
<element name="secondary_financing_src" type="string" default="0" minOccurs="0"/>
<element name="eem_escrow_amt" type="string" default="0" minOccurs="0"/>
<element name="seller_concessions" type="string" default="0" minOccurs="0"/>
<element name="lender_id" type="string" minOccurs="0"/>
<element name="sponsor_id" type="string" minOccurs="0"/>
<element name="version" type="string" default="3.3" minOccurs="0"/>
<element name="down_payment" type="string" minOccurs="0"/>
<element name="base_mortgage_amount" type="string" default="0" minOccurs="0"/>
<element name="base_LTV" type="string" default="0" minOccurs="0"/>
<element name="manufactured_housing" type="string" minOccurs="0"/>
<element name="living_units" type="string" default="0" minOccurs="0"/>
<element name="ARM_type" type="string" minOccurs="0"/>
<element name="refinance_type" type="string" minOccurs="0"/>
<element name="condo_ind" type="string" minOccurs="0"/>
<element name="LOAN_ORIGINATOR" minOccurs="0">
  <complexType>
    <attribute name="_EmployerIdentificationNumber" type="string" default="0"/>
  </complexType>
</element>
<element name="borrower" minOccurs="0" maxOccurs="unbounded">
  <complexType>
    <sequence>
      <element name="ssn" type="string" default="0" minOccurs="0"/>
      <element name="borr_age" type="string" default="0" minOccurs="0"/>
      <element name="borr_name" type="string" minOccurs="0"/>
      <element name="borr_race" type="string" minOccurs="0"/>
      <element name="borr_sex" type="string" default="0" minOccurs="0"/>
      <element name="borr_ethnicity" type="string" minOccurs="0"/>
      <element name="borr_birth_date" type="string" default="0" minOccurs="0"/>
    </sequence>
  </complexType>
</element>
<element name="creditreport" minOccurs="0" maxOccurs="unbounded">
  <complexType>
    <sequence>
      <element name="creditreporttype" type="string" minOccurs="0"/>
      <element name="creditreportdata" type="string" minOccurs="0"/>
    </sequence>
  </complexType>
</element>
<element name="loanapp" minOccurs="0" maxOccurs="unbounded">
  <complexType>
    <sequence>
      <element name="loanapptype" minOccurs="0" maxOccurs="1">
        <simpleType>
          <restriction base="string">
            <enumeration value="MISMO3.4"/>
            <enumeration value="MISMO3.3"/>
          </restriction>
        </simpleType>
      </element>
    </sequence>
  </complexType>
</element>

```

```

        <enumeration value="MISMOAUS2.3.1"/>
        <enumeration value="MISMOAUS2.4"/>
        <enumeration value="FannieMaeRLD3.2"/>
    </restriction>
</simpleType>
</element>
<element name="loanappdata" minOccurs="0" maxOccurs="1">
    <complexType mixed="true">
        <sequence>
            <any namespace="##any" processContents="lax" minOccurs="0" maxOccurs="1"/>
        </sequence>
    </complexType>
</element>
</sequence>
</complexType>
</element>
</sequence>
</complexType>
</element>
<element name="processResponse">
    <complexType>
        <sequence>
            <element name="NumReviews" type="int" minOccurs="0"/>
            <element name="Errcde" type="string" minOccurs="0" maxOccurs="1"/>
            <element name="ReviewRules" type="string" minOccurs="0" maxOccurs="1"/>
            <element name="PostReview" type="string" minOccurs="0" maxOccurs="1"/>
            <element name="PreReview" type="string" minOccurs="0" maxOccurs="1"/>
            <element name="Borrowers" minOccurs="0" maxOccurs="1">
                <complexType>
                    <sequence>
                        <element name="Borrower" minOccurs="0" maxOccurs="5">
                            <complexType>
                                <sequence>
                                    <element name="LFico" type="int" minOccurs="0" maxOccurs="1"/>
                                    <element name="ssn" type="string" minOccurs="0" maxOccurs="1"/>
                                    <element name="repository" type="string" minOccurs="0" maxOccurs="1"/>
                                </sequence>
                            </complexType>
                        </element>
                    </sequence>
                </complexType>
            </element>
            <element name="loan_number" type="string" minOccurs="0" maxOccurs="1"/>
            <element name="limit1" type="int" minOccurs="0" maxOccurs="1"/>
            <element name="limit2" type="int" minOccurs="0" maxOccurs="1"/>
            <element name="limit3" type="int" minOccurs="0" maxOccurs="1"/>
            <element name="limit4" type="int" minOccurs="0" maxOccurs="1"/>
            <element name="Version" type="string" minOccurs="0" maxOccurs="1"/>
            <element name="ServerName" type="string" minOccurs="0" maxOccurs="1"/>
            <element name="Score" type="string" minOccurs="0" maxOccurs="1"/>
        </sequence>
    </complexType>
</element>
<element name="TOTALRequest-Response">
    <complexType>

```

```

    <sequence>
      <element ref="tda:process" minOccurs="0" maxOccurs="1"/>
      <element ref="tda:processResponse" minOccurs="0" maxOccurs="1"/>
    </sequence>
  </complexType>
</element>
</schema>

```

D-2 WSDL

```

<wsdl:definitions name="F17CTOTALScorecard"
targetNamespace="http://xmlns.oracle.com/F17CTOTALScorecard/F17CTOTALScorecard/F17CTOTALScorecard"
"><wsdl:documentation><abstractWSDL>http://hwvalad3826.hud.gov:8001/soa-
infra/services/F17_MISMO/F17CTOTALScorecard!1.0/F17CTOTALScorecard.wsdl</abstractWSDL></wsdl:docu-
mentation><plnk:partnerLinkType name="F17CTOTALScorecard"><plnk:role
name="F17CTOTALScorecardProvider"
portType="client:F17CTOTALScorecard"/></plnk:partnerLinkType><wsp:Policy
wsu:Id="wss_username_token_service_policy"><sp:SupportingTokens><wsp:Policy><sp:UsernameToken
sp:IncludeToken="http://schemas.xmlsoap.org/ws/2005/07/securitypolicy/IncludeToken/AlwaysToRecipient"><ws-
p:Policy><sp:WssUsernameToken10/></wsp:Policy></sp:UsernameToken></wsp:Policy></sp:SupportingTokens>
</wsp:Policy><wsdl:types><schema><import
namespace="http://xmlns.oracle.com/F17CTOTALScorecard/F17CTOTALScorecard/F17CTOTALScorecard"
schemaLocation="http://hwvalad3826.hud.gov:8001/soa-
infra/services/F17_MISMO/F17CTOTALScorecard/apps/chums/xsd/F17CTOTALScorecard.xsd"/></schema><sch-
ema><import
namespace="http://xmlns.oracle.com/F17CTOTALScorecard/F17CTOTALScorecard/F17CTOTALScorecard"
schemaLocation="http://hwvalad3826.hud.gov:8001/soa-
infra/services/F17_MISMO/F17CTOTALScorecard/f17ctotalscorecard_client_ep?XSD=xsd/parserResults.xsd"/></
schema><xsd:schema><xsd:import namespace="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-
wssecurity-secext-1.0.xsd" schemaLocation="http://hwvalad3826.hud.gov:8001/soa-
infra/services/F17_MISMO/F17CTOTALScorecard/f17ctotalscorecard_client_ep?XSD=xsd/wsse.xsd"/></xsd:sche-
ma></wsdl:types><wsdl:message name="F17CTOTALScorecardRequestMessage"><wsdl:part name="payload"
element="client:process"/></wsdl:message><wsdl:message
name="F17CTOTALScorecardResponseMessage"><wsdl:part name="payload"
element="client:processResponse"/></wsdl:message><wsdl:portType
name="F17CTOTALScorecard"><wsdl:operation name="process"><wsdl:input
message="client:F17CTOTALScorecardRequestMessage"/><wsdl:output
message="client:F17CTOTALScorecardResponseMessage"/></wsdl:operation></wsdl:portType><wsdl:binding
name="F17CTOTALScorecardBinding" type="client:F17CTOTALScorecard"><soap:binding
transport="http://schemas.xmlsoap.org/soap/http"/><wsp:PolicyReference
URI="#wss_username_token_service_policy" wsdl:required="false"/></wsdl:operation
name="process"><soap:operation style="document" soapAction="process"/><wsdl:input><soap:body
use="literal"/></wsdl:input><wsdl:output><soap:body
use="literal"/></wsdl:output></wsdl:operation></wsdl:binding><wsdl:service
name="f17ctotalscorecard_client_ep"><wsdl:port name="F17CTOTALScorecard_pt"
binding="client:F17CTOTALScorecardBinding"><soap:address location="http://hwvalad3826.hud.gov:8001/soa-
infra/services/F17_MISMO/F17CTOTALScorecard/f17ctotalscorecard_client_ep"/></wsdl:port></wsdl:service></
wsdl:definitions>

```

APPENDIX E – Revisions

Revisions

E.1 TOTAL Scorecard – Implementation Date December 1, 2003

Added two new error codes

398: Lender ID is not certified
 399: Sponsor ID is not certified

E.2 TOTAL Scorecard – Implementation Date October 22, 2003

Changes made to be in compliance with HMDA requirements.

Added the following fields:

| <u>Name</u> | <u>Appendix A - position</u> |
|------------------------------|------------------------------|
| Borrower Ethnicity for SSN1 | 46 |
| Borrower Ethnicity for SSN2 | 47 |
| Borrower Ethnicity for SSN3 | 48 |
| Borrower Ethnicity for SSN4 | 49 |
| Borrower Ethnicity for SSN5 | 50 |
| Borrower Birth Date for SSN1 | 51 |
| Borrower Birth Date for SSN2 | 52 |
| Borrower Birth Date for SSN3 | 53 |
| Borrower Birth Date for SSN4 | 54 |
| Borrower Birth Date for SSN5 | 55 |
| Secondary Financing Amount | 87 |
| Secondary Financing Source | 88 |
| EEM Escrow Amount | 89 |
| Seller Concessions | 90 |

Modified the following fields:

| | |
|--------------------|---------------|
| Gift Letter Source | 70 |
| Borr X Race | 36 through 40 |

Modification to DTD Only
 Modified Race to allow multiple occurrences

Changes to pull FICO scores from the credit report:

Removed the following fields:

| <u>Name</u> | <u>Appendix A - old position</u> |
|-----------------------|----------------------------------|
| Beacon Score for SSN1 | 5 |
| Beacon Score for SSN2 | 6 |
| Beacon Score for SSN3 | 7 |
| Beacon Score for SSN4 | 8 |
| Beacon Score for SSN5 | 9 |
| FICO Score for SSN1 | 10 |
| FICO Score for SSN2 | 11 |
| FICO Score for SSN3 | 12 |

| | |
|-------------------------|----|
| FICO Score for SSN4 | 13 |
| FICO Score for SSN5 | 14 |
| Empirica Score for SSN1 | 15 |
| Empirica Score for SSN2 | 16 |
| Empirica Score for SSN3 | 17 |
| Empirica Score for SSN4 | 18 |
| Empirica Score for SSN5 | 19 |

E.3 TOTAL Scorecard - Implementation Date October 6, 2004

Modified the Appraised Value and Sales Price edits:

| <u>Name</u> | <u>Appendix A - position</u> |
|-----------------|------------------------------|
| Appraised Value | 2 |
| Sales Price | 9 |

Modified the definition of Assets After Closing:

| <u>Name</u> | <u>Appendix A – position</u> |
|----------------------|------------------------------|
| Assets After Closing | 3 |

E.4 TOTAL Scorecard – Release of Version 1.2 - Implementation Date Dec 1, 2004

| <u>Name</u> | <u>Appendix A - position</u> |
|-------------|------------------------------|
| Version | 95 (input) |
| Version | 21 (output) |

E.5 TOTAL Scorecard – Release of Version 2.0 - Implementation Date July 14, 2008

December 3, 2007 published updated documentation for this implementation.

Version 2.0 will collect three new required fields: Down Payment, Base Mortgage Amount, and Base LTV. Please see the Input Fields table in Appendix A (page A-9) for field definitions and the input DTD in Appendix C. Three new error codes were added to correspond to these new fields. Please see Appendix B (page B-2) for error codes.

In Version 2.0, two previously optional fields will be required. The two required fields are First Time Home Buyer and Counsel Type. Two new error codes were added to correspond to these newly required fields. Please see Appendix B (page B-2) for error codes.

Version 2.0 will allow for a new value in the Counsel Type field. This new value will be “D” which means the borrower was counseled by a HUD approved counseling agency.

Version 2.0 will collect three new optional fields: Manufactured Housing, Number of Living Units, and ARM Type. Please see the Input Fields table in Appendix A (page A-9) for field definitions and the input DTD in Appendix C.

Version 2.0 returns three new fields: Upfront MIP Factor, Annual MIP Factor, and Higher Mortgage Insurance Premium Indicator. Please see the Output Fields table in Appendix A (page A-10) for field definitions and the output DTD in Appendix C (page C-2). Please note: Only a zero will be returned for the Higher Mortgage Insurance Premium Indicator at this time. This is a place holder for future use.

Version 2.0 returns a new review rule (07). Please see the Output Fields table in Appendix A (page A-9) for Review Rule definitions.

Removed 4 Scorecard Error Codes from Appendix B

- 200: FICO Score numbers for SSN2 must be 0 when SSN2 not entered
- 210: FICO Score numbers for SSN3 must be 0 when SSN3 not entered
- 220: FICO Score numbers for SSN4 must be 0 when SSN4 not entered
- 230: FICO Score numbers for SSN5 must be 0 when SSN5 not entered

Modified the Appraised Value and Sales Price field size and Scoreable Criteria.
 Modified the Loan Amount, Unpaid Principle Balance and Mortgage Basis field size.

| Name | Appendix A – position |
|--------------------------|-----------------------|
| Appraised Value | 2 |
| Loan Amount | 5 |
| Sales Price | 9 |
| Unpaid Principle Balance | 79 |
| Mortgage Basis | 80 |

Modified the Error Messages for Appraised Value (305) and Sales Price (330) from Appendix B.

Modified the definition for Loan Purpose

Version 2.0 added two new values for Gift Letter Source (14 and 15) and removed one value (02).

Version 2.0 added a new value for Secondary Financing Source (04).

E.6 TOTAL Scorecard – Update to Version 2.0 - Implementation Date July 14, 2008

May 13, 2008 published updated documentation for this implementation

Added new input field refinance_type. Please see the Input Fields table in Appendix A (item 102) for field definition and the input DTD in Appendix D.

Modified the Monthly payment, including Principal, Interest, Taxes, and Insurance, Underwriting P&I, and Contract P&I field size and Scorable Criteria.

| <u>Name</u> | <u>Appendix A – position</u> |
|------------------|------------------------------|
| Monthly payment | 2 |
| Underwriting P&I | 21 |
| Contract P&I | 22 |

Modified the Error Messages for Monthly payment, including Principal, Interest, Taxes, and Insurance (315) and Underwriting P&I (375) from Appendix B.

E.7 TOTAL Scorecard – Release of Version 2.1 - Implementation Date October 1, 2008

September 2, 2008 published updated documentation for this implementation.

Version 2.1 added a new value for Refinance Type. In the Definition for the Input fields table in Appendix A (item 102), this new value will be “H” which means the borrower is applying for a HOPE loan.

In Version 2.1, three previously required fields will be optional. The three optional fields are Down Payment, Base Mortgage Amount and Base LTV.

Removed 3 Scorecard Error Codes from Appendix B

- 425: DOWN PAYMENT AMOUNT IS NOT VALID
- 430: BASE MORTGAGE AMOUNT IS NOT VALID
- 435: BASE LTV IS NOT VALID

Modified the Down Payment, Base Mortgage Amount, and Base LTV Scoreable Criteria.

| <u>Name</u> | <u>Appendix A – position</u> |
|----------------------|------------------------------|
| Down payment | 96 |
| Base Mortgage Amount | 97 |
| Base LTV | 98 |

E.8 TOTAL Scorecard – Update to Version 2.1 - Implementation Date Sept 1, 2009

August 3, 2009 published updated documentation for this implementation.

Modified allowable values for the “refinance_type” field. Added the following allowable values:

- “H” - HOPE For Homeowners
- “S” - Streamline Refinance

Removed “14 - Nonprofit/Religious/Community - Seller Funded” as an allowable value for the “gift_source” field.

E.9 TOTAL Scorecard – Release of Version 2.2 - Implementation Date October 4, 2010

May 12, 2010 published updated documentation for this implementation.

Modified to reference Version 2.2 which was implemented on April 3, 2010 to support MIP Factor changes described in Mortgagee Letter 2010-02.

No interface changes were made as part of this modification.

E.10 TOTAL Scorecard – Release of Version 2.3 - Implementation Date October 4, 2010

August 19, 2010 published updated documentation for this implementation.

Added new input field Sponsored Originator EIN. Please see the Input Fields table in Appendix A (item 103) for field definition and the input DTD in Appendix C.

Modified the definition for Lender ID. Please see Input Fields table in Appendix A (item 93) for new field definition.

Added 4 Scorecard Error Codes in Appendix B

- 385 Either Lender ID or Sponsored Originator EIN is required
- 386 Both Lender ID and Sponsored Originator EIN not allowed. Please submit either Lender ID or Sponsored Originator EIN.
- 387 Sponsored Originator EIN is invalid. Sponsored Originator EIN must be nine numeric digits.

388 Sponsored Originator EIN is invalid. Sponsored Originator EIN must be in the CHUMS Sponsored Originator list.

Added new review rule (08) for Version 2.3. Please see the Review Rule definitions in the Output Fields table in Appendix A. The new review rule is needed for FICO and LTV processing.

E.11 TOTAL Scorecard – Update to Version 2.3 - Implementation Date Sept 24, 2010

Modified definition for error codes 001 and 999. No functionality with TOTAL Scorecard was modified.

The definitions for two error codes were modified. Please see Appendix B.

The old definitions were:

- 001 - Data in AUS system to calculate score is not complete
- 999 - AUS system unable to score loan with data provided

The new definitions are:

- 001 - The TOTAL Scorecard server was not set up correctly
- 999 - The TOTAL Scorecard experienced an unexpected error while processing. One example that would cause this to occur is if the Web server was unable to open a connection to the database server. This should be very rare.

E.12 TOTAL Scorecard – Release of Version 2.4 - Implementation Date April 16, 2011

February 17, 2011 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 2.4 which will be implemented on April 16, 2011 to support Annual MIP Factor increases as described in Mortgagee Letter 2011-10.

No interface changes were made as part of this modification.

E.13 TOTAL Scorecard – Release of Version 2.5 - Implementation Date March 4, 2012

December 1, 2011 published updated documentation for this implementation.

The scoreable criteria was changed on nine fields. These fields are currently optional. They will be required beginning July 21, 2012. These fields are:

| | | |
|-----------------------------|----|--------------------|
| Borrower Paid Closing Costs | 65 | borr_clsg_costs |
| Current Housing Expenses | 67 | monthly_expense |
| Gift Letter Amount | 70 | gift_amt |
| Gift Letter Source | 71 | gift_source |
| Required Investment | 73 | req_invest |
| Total Closing Costs | 78 | clsg_costs |
| Total Fixed Payment | 82 | total_fixed |
| Seller Concessions | 90 | seller_concessions |
| Down Payment | 96 | down_payment |

The Source column in Appendix A was changed on the following six fields to remove all references to form 92900-WS.

| | | |
|-----------------------------|----|-------------------|
| Assets After Closing | 3 | assets_after_clsg |
| Loan-To-Value Ratio | 17 | ltv |
| Front-End Ratio | 18 | front_end_ratio |
| Back-End Ratio | 19 | back_end_ratio |
| Borrower Paid Closing Costs | 65 | borr_clsg_costs |
| Total Closing Costs | 78 | clsg_costs |

One new input field was added. This field is currently optional. It will be required beginning July 21, 2012.

| | | |
|-----------------------|-----|-----------|
| Condominium Indicator | 104 | condo_ind |
|-----------------------|-----|-----------|

Three new Review Rules were added (Output data item #3). These review rules will be implemented beginning July 21, 2012.

- 09 – Current Housing Expense exceeds Monthly Income.
- 10 – Gift Amount exceeds 150% of Required Investment.
- 11 – Seller Concession Amount exceeds 6% of Sale Price.

Four new Output fields were added.

| | | |
|------------------------|----|--------|
| County Limits (1 Unit) | 26 | limit1 |
| County Limits (2 Unit) | 27 | limit2 |
| County Limits (3 Unit) | 28 | limit3 |
| County Limits (4 Unit) | 29 | limit4 |

Added 12 Scorecard Error Codes in Appendix B

| Error Code | Error Message |
|------------|--|
| 425 | Current Housing Expense must be between \$0 and \$99,999.99 |
| 430 | Gift Letter Amount must be between \$0 and \$999,999 |
| 435 | Gift Letter Source must be “00”, “01”, “03”, “06”, or “15” |
| 440 | Required Investment must be greater than the Negative Loan Amount |
| 445 | Required Investment must be less than: 120% (lesser of Sale Price or Appraised Value) – Mortgage Amount |
| 450 | Down Payment is required |
| 455 | Down Payment cannot be less than zero |
| 460 | Down Payment must be less than 150% (Sales Price – (Mortgage Amount – MIP)) |
| 465 | Total Fixed Payment must be between \$0 and Monthly Income |
| 470 | Condo Indicator must be “Y” or “N” |
| 475 | Total Closing Costs cannot exceed 20% of Sale Price on a purchase. Total Closing Costs cannot exceed 20% of Appraised Value on a refinance |
| 480 | Seller Concession Amount must be between \$0 and 20% of Sales Price |
| 485 | Borrower Closing Costs cannot exceed 20% of Sale Price on a purchase. Borrower Closing Costs cannot exceed 20% of Appraised Value on a refinance |

E.14 TOTAL Scorecard – Release of Version 2.6 - Implementation Date April 8, 2012

March 15, 2012 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 2.6 which will be implemented on April 8, 2012 to support MIP Factor increases as described in Mortgagee Letter 2012-04.

No interface changes were made as part of this modification.

The message for error code 372 was modified to be consistent with the actual edit. The message was changed from “Back End Ratio must be greater than Front End Ratio” to “Back End Ratio must be greater than or equal to Front End Ratio”

E.15 TOTAL Scorecard – Release of Version 2.7- Implementation Date June 11, 2012

April 19, 2012 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 2.7 which will be implemented on June 11, 2012 to support MIP Factor changes as described in Mortgagee Letter 2012-04.

No interface changes were made as part of this modification.

Error codes 455 and 460 were removed. They had been defined as

| | |
|-----|---|
| 455 | Down Payment cannot be less than zero |
| 460 | Down Payment must be less than 150% (Sales Price – (Mortgage Amount – MIP)) |

Error code 445 was modified. The old definition was

| | |
|-----|--|
| 445 | Required Investment must be less than: 120% (lesser of Sale Price or Appraised Value) – Mortgage Amount |
|-----|--|

The new definition is:

| | |
|-----|---|
| 445 | For a purchase Required Investment must be less than 120% (Sale Price) – Mortgage Amount. For a refinance Required Investment must be less than or equal to \$999,999. |
|-----|---|

E.16 TOTAL Scorecard – Release of Version 3.0 - Implementation Date July 21, 2012

May 18, 2012 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.0 which will be implemented on July 21, 2012

The scoreable criteria was changed on ten fields. They will be required beginning July 21, 2012. These fields are:

| | | |
|-----------------------------|----|-----------------|
| Borrower Paid Closing Costs | 65 | borr_clsg_costs |
| Current Housing Expenses | 67 | monthly_expense |
| Gift Letter Amount | 70 | gift_amt |

| | | |
|-----------------------|-----|--------------------|
| Gift Letter Source | 71 | gift_source |
| Required Investment | 73 | req_invest |
| Total Closing Costs | 78 | clsg_costs |
| Total Fixed Payment | 82 | total_fixed |
| Seller Concessions | 90 | seller_concessions |
| Down Payment | 96 | down_payment |
| Condominium Indicator | 104 | condo_ind |

Version 3.0 will return four new Review Rules and two new Error Codes.

A new Appendix C has been added to list all current Review Rules.

The new Review Rules are:

| | |
|----|--|
| 09 | Current Housing Expense exceeds Monthly Income |
| 10 | Gift Amount exceeds 150% of Required Investment Please note: This review rule was never implemented. |
| 11 | Seller Concession Amount exceeds 6% of Sale Price |
| 12 | At least one 30-day late Mortgage Payment in the last 12 months – Applies to only Cash Out Refinance |
| 13 | At least one borrower with no available credit score |

The new Error Codes are:

| | |
|-----|---|
| 490 | Gift Letter Amount must be greater than zero when Gift Letter Source is not “N/A” |
| 495 | Gift Letter Source cannot be “N/A” when Gift Letter Amount is greater than zero |

Two Scorecard Error Codes were removed from Appendix B

235: A zero FICO Score is only permitted for one applicant

240: One FICO Score is required when only one applicant

E.17 TOTAL Scorecard – Release of Version 3.1 - Implementation Date March 2, 2013

February 11, 2013 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.1 which will be implemented on March 2, 2013.

No interface changes were made as part of this modification.

E.18 TOTAL Scorecard – Release of Version 3.2 - Implementation Date March 30, 2013

March 04, 2013 published updated documentation for this implementation.

Two new Review Rules are added for version 3.2:

| | |
|----|--|
| 14 | The lowest median FICO score is less than 620 and the Back-End Ratio (DTI) is greater than 43.00. Please see ML 2013-05. |
| 15 | Required Investment is less than zero and the loan is a purchase transaction. |

The MIP Factors were modified to support MIP Factor changes described in Mortgagee Letter 2013-04.

E.19 TOTAL Scorecard – Release of Version 3.3 - Implementation Date June 1, 2013

April 10, 2013 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.3 which will be implemented on June 1, 2013.

The MIP Factors were modified to support MIP Factor changes described in Mortgagee Letter 2013-04.

No interface changes were made as part of this modification.

E.20 TOTAL Scorecard – Release of Version 3.3 - Implementation Date June 28, 2013

June 18, 2013 published updated documentation for this implementation.

Modified scorable criteria for Required Investment and Total Closing Costs. Please see revised scorable criteria in Appendix A.

E.21 TOTAL Scorecard – Release of Version 3.4 - Implementation Date Feb 15, 2014

March 05, 2014 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.4 which was implemented on February 15, 2014.

Modified definition for all four County Limits so that limits returned are associated with a TOTAL Scorecard version and aligned more closely to FHA Mortgage Limit changes. This definition change applies to TOTAL Scorecard Version 3.3 and forward.

| Field | Field Number | Old Definition | New Definition |
|------------------------|--------------|--|---|
| County Limits (1 Unit) | 26 | The One Unit FHA Mortgage Limit for the county currently in effect. Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard | The One Unit FHA Mortgage Limit for the county associated with the TOTAL Scorecard Version. Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard. |
| County Limits (2 Unit) | 27 | The Two Unit FHA Mortgage Limit for the county currently in effect. Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard | The Two Unit FHA Mortgage Limit for the county associated with the TOTAL Scorecard Version. Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard. |
| County Limits (3 Unit) | 28 | The Three Unit FHA Mortgage Limit for the county currently in effect. Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard | The Three Unit FHA Mortgage Limit for the county associated with the TOTAL Scorecard Version. Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard. |
| County Limits (4 Unit) | 29 | The Four Unit FHA Mortgage Limit for the county currently in effect. Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard | The Four Unit FHA Mortgage Limit for the county associated with the TOTAL Scorecard Version. Data will only be populated if AUS provides the state and county code in the call to TOTAL Scorecard. |

E.22 TOTAL Scorecard – SOAP Version 3.4 – Implementation Date July 26, 2014

May 16, 2014 published updated documentation for this implementation.

Modified to reference SOAP call to TOTAL Scorecard Version 3.4 which will be implemented on July 26, 2014.

Section 3.0 Interface File Descriptions and Appendix D have been completely replaced. The older versions of the developer’s guide contained DTDs. The new version contains the WSDL and Schema. The new version also describes entity references and unparsed character data.

- 2.1.1 Interface Data File Formats
- 2.1.2 Communications Protocol
- 2.3 Security Requirements and Recommendations

Error code 445 was modified. The old definition was

| | |
|-----|---|
| 445 | For a purchase Required Investment must be less than 120% (Sale Price) – Mortgage Amount. For a refinance Required Investment must be less than or equal to \$999,999. |
|-----|---|

The new definition is:

| | |
|-----|--|
| 445 | Required Investment must be less than or equal to \$999,999. |
|-----|--|

E.23 TOTAL Scorecard – SOAP MISMO Version 3.4 - Implementation Date Nov 8, 2014

June 6, 2014 published updated documentation for this implementation.

Modified to reference Loan Application container to contain MISMO or Fannie Mae RLD loan application which will be implemented on November 8, 2014.

- Loan Application Type (Field 105) and Loan Application Data (Field 106) were added in Appendix A.
- Error Codes 500 through 800 were added in Appendix B.
- Schema in Appendix D was updated to include the “loanapp” container.

E.24 TOTAL Scorecard – SOAP MISMO Version 3.4 - Implementation Date Nov 8, 2014

September 25, 2014 updated documentation for SOAP MISMO implementation.

In Appendix A, updated Scorecard Table Elements, Definition and Source columns for loan amount and MIP.

The previous definitions were:

| | | | | | | | | | |
|----------------------------|---|----------|---|-----------|---|---------|------------------|------------------------------|------|
| Loan amount including MIP | Sum of loan amount and MIP in whole dollars from Section 7 in 1003. | 9999999 | 7 | Scorecard | I | Scoring | 1003 (Section 7) | Must be > 0 and < 15000 | piti |
| Mortgage Insurance Premium | Loan amount multiplied by the appropriate MIP Factor in whole dollars from Section 7 of 1003. | 99999.99 | 8 | Scorecard | I | Scoring | 1003 (Section 7) | Any non-negative value is ok | mip |

The new definitions are:

| | | | | | | | | | |
|---|---|----------|---|-----------|---|---------|---|------------------------------|-------------|
| Loan amount including financed Upfront Mortgage Insurance Premium (MIP) | Sum of the base loan amount and portion of the Upfront MIP that is being financed, line o. from Section 7 (Details of Transaction) of the 1003, in whole dollars. | 9999999 | 7 | Scorecard | I | Scoring | 1003 (Section 7, line o. of the Details of Transaction) | Must be > 0 | loan_amount |
| Financed Upfront Mortgage Insurance Premium | The portion of the Upfront MIP that is being financed, line n. from Section 7 (Details of Transaction) of the 1003, in whole dollars. | 99999.99 | 8 | Scorecard | I | Scoring | 1003 (Section 7, line n. of the Details of Transaction) | Any non-negative value is ok | mip |

In Appendix A, updated Format, Size and Scoreable Criteria for Loan Application Type.

The old definition was:

| | | | | | | | | | |
|-----------------------|--|----------|----|-----------|---|---------|------------------|---|-------------|
| Loan Application Type | Designates format of the Loan Application Data | Char(10) | 10 | Scorecard | I | Scoring | Loan Application | Must be a supported Loan Application Type. MISMOAUS2.3.1 MISMOAUS2.4 FannieMaeRLD3.2 | loanapptype |
|-----------------------|--|----------|----|-----------|---|---------|------------------|---|-------------|

The new definition is:

| | | | | | | | | | |
|-----------------------|--|----------|----|-----------|---|---------|------------------|---|-------------|
| Loan Application Type | Designates format of the Loan Application Data | Char(15) | 15 | Scorecard | I | Scoring | Loan Application | Must be a supported Loan Application Type. MISMOAUS2.3.1 MISMOAUS2.4 FannieMaeRLD3.2 MISMO3.3 | loanapptype |
|-----------------------|--|----------|----|-----------|---|---------|------------------|---|-------------|

In Appendix B, error codes 565 through 590 are temporarily suspended until a future date.

In Appendix D, changes were made to the loanapp element in D-1 Schema. Also, removed the obsolete aus and signon elements from the schema. A new wsdl was provided in D-2 WSDL.

E.25 TOTAL Scorecard – Release of Version 3.5 - Implementation Date January 1, 2015

December 16, 2014 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.5. The implementation date for version 3.5 is January 1, 2015.

No interface changes were made as part of this modification. This version was created to support the Calendar Year 2015 Mortgage Limits.

E.26 TOTAL Scorecard – Release of Version 3.6 - Implementation Date January 24, 2015

Modified to reference TOTAL Scorecard Version 3.6. The implementation date for version 3.6 is January 24, 2015.

In Appendix A, updated the Scoreable Criteria Table Elements for Appraised Value and Sales Price.

The previous definitions were:

| | | | | | | | | | |
|-------------------------------|---|---------|---|-----------|---|---------|------------------|---|-----------------|
| Appraised value, if available | "As is" or "As Repaired" from URAR (Uniform Residential Appraisal Report) in whole dollars. | 9999999 | 7 | Scorecard | I | Scoring | URAR | If entered, must be > 9000 and must be <= 9,999,999 | appraised_value |
| Sales price | Purchase Price stated in Section 7 in whole dollars of 1003. | 9999999 | 7 | Scorecard | I | Scoring | 1003 (Section 7) | If entered, must be > 9000 and must be <= 9,999,999 | sale_price |

The new definitions are:

| | | | | | | | | | |
|-------------------------------|---|---------|---|-----------|---|---------|------------------|---|-----------------|
| Appraised value, if available | "As is" or "As Repaired" from URAR (Uniform Residential Appraisal Report) in whole dollars. | 9999999 | 7 | Scorecard | I | Scoring | URAR | If entered, must be between 0 and 9,999,999 | appraised_value |
| Sales price | Purchase Price stated in Section 7 in whole dollars of 1003. | 9999999 | 7 | Scorecard | I | Scoring | 1003 (Section 7) | If entered, must be between 0 and 9,999,999 | sale_price |

In Appendix B, updated definitions for Error Codes 305 and 330.

Error code 305 was modified. The old definition was:

| | |
|-----|---|
| 305 | Appraised Value must be between \$9,000 and \$9,999,999. Otherwise, it must be 0. |
|-----|---|

The new definition is:

| | |
|-----|--|
| 305 | Appraised Value must be between \$0 and \$9,999,999. |
|-----|--|

Error code 330 was modified. The old definition was:

| | |
|-----|---|
| 330 | Sale price must be between \$9,000 and \$9,999,999. |
|-----|---|

The new definition is:

| | |
|-----|---|
| 330 | Sale price must be between \$0 and \$9,999,999. |
|-----|---|

In Appendix B, updated definitions for Error Codes 675, 680, 685, 690 and 695.

The old definitions were:

| | |
|-----|---|
| 675 | Years on Current Job for Borrower 1 must be numeric and greater than zero |
| 680 | Years on Current Job for Borrower 2 must be numeric and greater than zero |
| 685 | Years on Current Job for Borrower 3 must be numeric and greater than zero |
| 690 | Years on Current Job for Borrower 4 must be numeric and greater than zero |
| 695 | Years on Current Job for Borrower 5 must be numeric and greater than zero |

The new definitions are:

| | |
|-----|---|
| 675 | Years on Current Job or Months on Current Job for Borrower 1 must be numeric and greater than zero if employment is indicated |
| 680 | Years on Current Job or Months on Current Job for Borrower 2 must be numeric and greater than zero if employment is indicated |
| 685 | Years on Current Job or Months on Current Job for Borrower 3 must be numeric and greater than zero if employment is indicated |
| 690 | Years on Current Job or Months on Current Job for Borrower 4 must be numeric and greater than zero if employment is indicated |
| 695 | Years on Current Job or Months on Current Job for Borrower 5 must be numeric and greater than zero if employment is indicated |

In Appendix B, error codes 740, 750 and 760 have been removed

| | |
|-----|---|
| 740 | Partial lender loan originator information supplied. If any lender loan originator information is provided both First Name, Last Name, and either NMLS ID or State and License combination of the lender loan originator are required |
| 750 | Partial broker loan originator information supplied. If any broker loan originator information is provided both First Name, Last Name, and either NMLS ID or State and License combination of the broker loan originator are required |
| 760 | Partial broker company information supplied. If any broker company information is provided Broker Company Name, Address and either NMLSID or State and License combination are required |

The Annual MIP Factors were modified to support MIP Factor changes described in Mortgagee Letter 2015-01.

E.27 TOTAL Scorecard – Update to Counseling Type Definition - Implementation Date September 14, 2015

In Appendix A, updated the Scoreable Criteria Table Element for Counseling Type.

The previous definition was:

| | | | | | | | | | |
|--------------|--|-----------------|--------|-----------|---|---------|--------------------------------------|-----------------|--------------|
| Counsel Type | Indicates if First Time Homebuyer (FTHB) completed homebuyer counseling. " " - N/A, "A"- Not Counseled, "D" – HUD Approved Counseling Agency | "A", "D" or " " | 7 1 | Scorecard | I | Scoring | URAR CHUMS Insurance Screen | "A", "D" or " " | counsel_type |
|--------------|--|-----------------|--------|-----------|---|---------|--------------------------------------|-----------------|--------------|

The new definition is:

| | | | | | | | | | |
|--------------|--|------------|--------|-----------|---|---------|--------------------------------------|------------|--------------|
| Counsel Type | Indicates if the borrower completed homebuyer counseling. "A"- Not Counseled, "D" – HUD Approved Counseling Agency | "A" or "D" | 7 1 | Scorecard | I | Scoring | URAR CHUMS Insurance Screen | "A" or "D" | counsel_type |
|--------------|--|------------|--------|-----------|---|---------|--------------------------------------|------------|--------------|

E.28 TOTAL Scorecard – Release of Version 3.7 - Implementation Date January 1, 2016

December 7, 2015 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.7. The implementation date for version 3.7 is January 1, 2016.

No interface changes were made as part of this modification. This version was created to support the Calendar Year 2016 Mortgage Limits.

E.29 TOTAL Scorecard – Updated Definitions, Removal of MIP Factors - Implementation Date June 11, 2016

Appraised Value

Modified definition of Appraised Value

The previous definition was:

| | | | | | | | | | |
|-------------------------------|---|---------|---|-----------|---|---------|------|---|-----------------|
| Appraised value, if available | "As is" or "As Repaired" from URAR (Uniform Residential Appraisal Report) in whole dollars. | 9999999 | 7 | Scorecard | I | Scoring | URAR | If entered, must be between 0 and 9,999,999 | appraised_value |
|-------------------------------|---|---------|---|-----------|---|---------|------|---|-----------------|

The new definition is:

| | | | | | | | | | |
|-------------------------------|---|---------|---|-----------|---|---------|------|---|-----------------|
| Appraised value, if available | "As Is" or "Subject To/After-Improved Value from the URAR (Uniform Residential Appraisal Report) in whole dollars. For 203(k) loans, provide the "Subject To/After-Improved" value. | 9999999 | 7 | Scorecard | I | Scoring | URAR | If entered, must be between 0 and 9,999,999 | appraised_value |
|-------------------------------|---|---------|---|-----------|---|---------|------|---|-----------------|

Loan-to Value Ratio

Modified definition and scorable criteria for Loan-To-Value Ratio

The previous definition was:

| | | | | | | | | | |
|---------------------|--|--------|---|-----------|---|---------|----------------------------------|--------------------------------|---------------------|
| Loan-To-Value Ratio | Loan amount without Upfront MIP divided by the lesser of the appraised value or sales price of the property. | 999.99 | 6 | Scorecard | I | Scoring | 92900-LT, , Mortgage Information | Must be > 10 and must be < 126 | Loan-To-Value Ratio |
|---------------------|--|--------|---|-----------|---|---------|----------------------------------|--------------------------------|---------------------|

The new definition is:

| | | | | | | | | | |
|---------------------|---|--------|---|-----------|---|---------|----------------------------------|--------------------|-----|
| Loan-To-Value Ratio | Loan Amount without Upfront MIP divided by the adjusted value of the property. For 203(k) loans, divide by the 203(k) calculated value (See 3D on the 203(k) calculator). | 999.99 | 6 | Scorecard | I | Scoring | 92900-LT, , Mortgage Information | Must be 0.1 to 125 | ltv |
|---------------------|---|--------|---|-----------|---|---------|----------------------------------|--------------------|-----|

Error Code 360

Modified Error Code 360. Please see Appendix B.

The old definition was:

360 - Loan-To-Value Ratio must be between 11 and 125

The new definition is:

360 - Loan-To-Value Ratio must be between 0.1 and 125

MIP Factors

Removed Upfront MIP Factor, Annual MIP Factor, and MIP Bump Indicator from Output Variables table in Appendix A and from Schema in Appendix D.

E30. TOTAL Scorecard – No System Update - Guide Updated June 24, 2016 - TOTAL Version 3.8, Effective August 22, 2016

Update to description of Error Code 485 (no system changes), Updated References (no system changes). Changes for the definition and source of Required Investment. This change requires a new version 3.8 and is effective for case numbers issued on or after August 22, 2016.

Error Code 485

Modified text for Error Code 485. This change clarifies the lower limit allowed for Borrower Closing Costs. No system change was made. Please see Appendix B.

The old description was:

Borrower Closing Costs cannot exceed 20% of Sale Price on a purchase. Borrower Closing Costs cannot exceed 20% of Appraised Value on a refinance.

The new description is:

Borrower Closing Costs must be between \$0 and 20% Sale Price on a purchase. Borrower Closing Costs must be between \$0 and 20% Appraised Value on a refinance.

Updated References

Section 1.1: Removed and replaced URL links related to Handbook 4155.1 with references and links to the new Handbook 4000.1.

Appendix A: Changed all references from Handbook 4155.1 to 4000.1.

Required Investment

Modified the definition and source for Required Investment in Appendix A. This change is effective with TOTAL v3.8 and applies to case numbers assigned on or after August 22, 2016.

The previous definition and source were:

| | | | | | | | | | |
|---------------------|--|--------|---|-----------|---|-------|---|--|------------|
| Required Investment | Borrower Funds to Close Required: Lenders must enter the total amount that the borrower is required to pay at closing. If the borrower is receiving cash back, the amount should be negative | 999999 | 6 | Scorecard | 1 | CHUMS | URLA, VII Details of Transaction, Line P, Cash from/to Borrower | Lower Bound: Negative Loan Amount Upper Bound: If the Sale Price is at least \$35,000: (120% * [lesser of Sale Price or Appraised Value]) – Mortgage Amount | req_invest |
|---------------------|--|--------|---|-----------|---|-------|---|--|------------|

The new definition and source are:

| | | | | | | | | | |
|---------------------|---|--------|---|-----------|---|-------|---|--|------------|
| Required Investment | Borrower's investment into the transaction. If the borrower is receiving cash back, the amount should be a negative number | 999999 | 6 | Scorecard | 1 | CHUMS | Total Costs (URLA VII Details of Transaction Line i); subtract closing costs or other credits paid by an interested third party; subtract total Loan Amount (loan amount including financed MIP). | Lower Bound: Negative Loan Amount Upper Bound: 999999 | req_invest |
|---------------------|---|--------|---|-----------|---|-------|---|--|------------|

E31. TOTAL Scorecard – Review Rule 14 - Guide Updated September 8, 2016 - TOTAL Version 3.8, Effective August 22, 2016

Review rule 14 was removed as part of the implementation of Version 3.8.

E32. TOTAL Scorecard – Review Rule 10 - Guide Updated October 17, 2016

The obsolete Review Rule 10 was removed.

Review Rule 10:

Gift Amount exceeds 150% of Required Investment
Please note: This review rule was never implemented.

E33. TOTAL Scorecard – Release of Version 3.9 - Implementation Date January 1, 2017

December 7, 2016 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.9. The implementation date for version 3.9 is January 1, 2017.

No interface changes were made as part of this modification. This version was created to support the Calendar Year 2017 Mortgage Limits.

E34. TOTAL Scorecard – Release of Version 3.11 - Implementation Date June 24, 2017

February 23, 2017 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.11. The implementation date for version 3.11 is June 24, 2017.

Secondary Financing

Modified the definition and source for Secondary Financing in Appendix A. This change is effective with TOTAL v3.11 and applies to case numbers assigned on or after June 26, 2017.

The previous Definitions, Data Type, Source and Scoreable Criteria were:

| | | | | | | | | | |
|----------------------------|---|--------|---|------------|---|-------|------------------------|-----------------|-------------------------|
| Secondary Financing Amount | Amount of financing provided from a source other than the originating lender that creates a lien against a property (even if the debt may be forgiven by the provider of the funds). | 999999 | 6 | Additional | I | CHUMS | CHUMS Insurance Screen | Any value is ok | secondary_financing_amt |
| Secondary Financing Source | Type of entity providing secondary financing 00 - N/A 01 - Government & Nonprofit Instrumentality of Government 02 - Nonprofit (not Instrumentality of Government) 03 - Private Organizations/Eligible Individuals 04 - Lender | 99 | 2 | Additional | I | CHUMS | CHUMS Insurance Screen | Any value is ok | secondary_financing_src |

The new definitions are:

| | | | | | | | | | |
|----------------------------|--|--------|---|----------------------|---|-------|---------------|--------------------------------|-------------------------|
| Secondary Financing Amount | Amount of financing provided, other than the first mortgage that creates a lien against the subject property (even if the debt may be forgiven by the provider of the funds). If there is secondary financing from multiple sources, this amount must include the total from all sources. | 999999 | 6 | Scorecard (Required) | I | CHUMS | 1003 Loan App | 0 to 999999. May not be blank. | secondary_financing_amt |
| Secondary Financing Source | Type of entity providing secondary financing 00 - N/A 02 - Nonprofit (not Instrumentality of Government) 03 - Private Organizations/Eligible Individuals 04 - Lender 07 - Government - State or Local 08 - Nonprofit Instrumentality of Government 09 - Family/Relative 10 - Federal Government If there is secondary financing from multiple sources, select the source from the highest amount. | 99 | 2 | Scorecard | I | CHUMS | 1003 Loan App | Any valid value or blank is ok | secondary_financing_src |

The new Error Codes that will be added to Appendix B:

| Error Code | Error Messages |
|------------|---|
| 436 | Secondary Financing amount must be provided (zero or greater). |
| 437 | If Secondary Financing Source is provided, it must be a valid value or blank. |

Error Code 485

The upper limit to Error Code 485 for purchases was recently removed. A new upper limit will be effective for case numbers assigned on or after June 26, 2017. Modified the Error Message in Appendix B.

Current Requirement:

| ERROR CODES | ERROR MESSAGES |
|-------------|---|
| 485 | Borrower Closing Costs must be at least \$0 on a purchase. Borrower Closing Costs must be between \$0 and 20% Appraised Value on a refinance. |

New Requirement:

| ERROR CODES | ERROR MESSAGES |
|-------------|--|
| 485 | Borrower Closing Costs must be between \$0 and 20% of the Appraised Value. |

The previous Scoreable Criteria for Borrower’s Paid Closing Costs is:

| | | | | | | | | | |
|-------------------------------|--|--------|---|-----------|---|-------|--|---|-----------------|
| Borrower's Paid Closing Costs | The closing costs that the borrower actually pays (Total closing costs less allowable closing costs paid by the seller or other interested third party on behalf of the borrower). | 999999 | 6 | Scorecard | I | CHUMS | URLA, VII Details of Transaction, Line F Estimated closing costs minus Line K, Borrower's closing costs paid by seller | If Purchase: 0 to 20% Sale Price. If Refinance 0 to 20% Appraised Value | borr_clsg_costs |
|-------------------------------|--|--------|---|-----------|---|-------|--|---|-----------------|

The new Scoreable Criteria for Borrower’s Paid Closing Costs is:

| | | | | | | | | | |
|-------------------------------|--|--------|---|-----------|---|-------|--|---|-----------------|
| Borrower's Paid Closing Costs | The closing costs that the borrower actually pays (Total closing costs less allowable closing costs paid by the seller or other interested third party on behalf of the borrower). | 999999 | 6 | Scorecard | I | CHUMS | URLA, VII Details of Transaction, Line F Estimated closing costs minus Line K, Borrower's closing costs paid by seller | Must be between \$0 and 20% of the Appraised Value. | borr_clsg_costs |
|-------------------------------|--|--------|---|-----------|---|-------|--|---|-----------------|

Counsel Type

Modified the definition for Counsel Type in Appendix A.

The previous definition for Counsel Type is:

| | | | | | | | | | |
|--------------|--|------------|---|-----------|---|---------|------------------------|------------|--------------|
| Counsel Type | Indicates if the borrower completed homebuyer counseling. "A"- Not Counseled, "D" – HUD Approved Counseling Agency | "A" or "D" | 1 | Scorecard | I | Scoring | CHUMS Insurance Screen | "A" or "D" | counsel_type |
|--------------|--|------------|---|-----------|---|---------|------------------------|------------|--------------|

The new definition for Counsel Type is:

| | | | | | | | | | |
|--------------|---|------------|---|-----------|---|---------|------------------------|------------|--------------|
| Counsel Type | Indicates if the borrower completed homebuyer counseling. "A"- No HUD Approved Counseling, "D" – HUD Approved Counseling Agency | "A" or "D" | 1 | Scorecard | I | Scoring | CHUMS Insurance Screen | "A" or "D" | counsel_type |
|--------------|---|------------|---|-----------|---|---------|------------------------|------------|--------------|

Refinance Type

Modified the Definition and Scoreable Criteria for Refinance Type in Appendix A. This change is effective with TOTAL v3.11 and applies to case numbers assigned on or after June 26, 2017. Unknown (blank) will no longer be a valid value for Refinance Type. There is a new error code associated with this change.

The previous Definition and Scoreable Criteria were:

| | | | | | | | | | |
|----------------|--|---------|---|-----------|---|---------|--|-----------------|----------------|
| Refinance Type | " " - Unknown "C" - Conventional "H" - HOPE For Homeowners "N" - Not Refinance "R" - Prior FHA "S" - Streamline Refinance). | Char(1) | 1 | Scorecard | I | Scoring | | Any value is ok | refinance_type |
|----------------|--|---------|---|-----------|---|---------|--|-----------------|----------------|

The new Definition and Scoreable Criteria are:

| | | | | | | | | | |
|----------------|--|---------|---|-----------|---|---------|--|------------------------|----------------|
| Refinance Type | " " - Unknown "C" – Conventional "H" – HOPE For Homeowners "N" - Not Refinance "R" - Prior FHA "S" - Streamline Refinance "A" – Cash-Out "O" – No-Cash-Out | Char(1) | 1 | Scorecard | I | Scoring | | Any valid value is OK. | refinance_type |
|----------------|--|---------|---|-----------|---|---------|--|------------------------|----------------|

Please note that the Cash-Out and No-Cash enumerations are existing values but were not listed in the Developer’s Guide.

The new Error Code that will be added to Appendix B:

| Error Code | Error Messages |
|------------|---------------------------------------|
| 316 | Refinance Type must be a valid value. |

Review Rule 12

The description for Review Rule 12 has been updated in Appendix C.

The previous Description:

| | |
|----|--|
| 12 | At least one 30-day late Mortgage Payment in the last 12 months – Applies only to Cash Out Refinance |
|----|--|

The new Description:

| | |
|----|--|
| 12 | At least one 30-day late Mortgage Payment in recent history – Applies only to Cash Out Refinance |
|----|--|

E35. TOTAL Scorecard – Release of Version 3.12 - Implementation Date January 1, 2018

December 7, 2017 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.12. The implementation date for version 3.12 is January 1, 2018.

No interface changes were made as part of this modification. This version was created to support the Calendar Year 2018 Mortgage Limits.

E36. TOTAL Scorecard – Release of Version 3.13 - Implementation Date January 1, 2019

December 20, 2018 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.13. The implementation date for version 3.13 is January 1, 2019.

No interface changes were made as part of this modification. This version was created to support the Calendar Year 2019 Mortgage Limits.

E.37. TOTAL Scorecard –Added MISMO 3.4 URLA -Implementation Date July 1, 2019

December 20, 2018 published updated documentation for this implementation. TOTAL is being updated to accept the new Loan Application (MISMO v3.4) as an accepted version for the attached application file portion of the submission.

The TOTAL test environment will reflect this change beginning on February 4, 2019. The change will be implemented in the TOTAL Production environment on July 1, 2019. This revision of the TOTAL Developer’s Guide includes updated sources of data in Appendix A to reference sections in updated Uniform Residential Loan Application (URLA). Appendix D-1 WSDL has also been updated to include the new version.

E38. TOTAL Scorecard – Release of Version 3.14 - Implementation Date March 16, 2019

March 29, 2019 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.14. The implementation date for version 3.14 was March 16, 2019.

No interface changes were made as part of this modification. TOTAL Scorecard was updated in an effort for FHA to manage mortgage risk trends as announced in FHA INFO #19-07.

E39. TOTAL Scorecard – Release of Version 3.15 - Implementation Date January 1, 2020

December 20, 2019 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 3.15. The implementation date for version 3.15 is January 1, 2020.

No interface changes were made as part of this modification. This version was created to support the Calendar Year 2020 Mortgage Limits.

E40. TOTAL Scorecard – Release of Version 4.0 - Implementation Date January 1, 2021

December 20, 2020 published updated documentation for this implementation.

Modified to reference TOTAL Scorecard Version 4.0. The implementation date for version 4.0 is January 1, 2021.

No interface changes were made as part of this modification. This version was created to support the Calendar Year 2021 Mortgage Limits.

E41. TOTAL Scorecard – Implementation Date February 5, 2021

Removed the edits in TOTAL Scorecard which require Years or Months on Job being entered when the borrower employment flag is set. The error codes to be removed are listed below.

In Appendix B, the definitions for removed Error Codes 675, 680, 685, 690 and 695.

The old definitions are:

| | |
|-----|---|
| 675 | Years on Current Job or Months on Current Job for Borrower 1 must be numeric and greater than zero if employment is indicated |
| 680 | Years on Current Job or Months on Current Job for Borrower 2 must be numeric and greater than zero if employment is indicated |
| 685 | Years on Current Job or Months on Current Job for Borrower 3 must be numeric and greater than zero if employment is indicated |
| 690 | Years on Current Job or Months on Current Job for Borrower 4 must be numeric and greater than zero if employment is indicated |
| 695 | Years on Current Job or Months on Current Job for Borrower 5 must be numeric and greater than zero if employment is indicated |

The new definitions are:

| | |
|-----|--|
| 675 | Years on Current Job or Months on Current Job for Borrower 1 must be numeric and greater than zero if employment is indicated Please note: this error is temporarily suspended until a future date |
| 680 | Years on Current Job or Months on Current Job for Borrower 2 must be numeric and greater than zero if employment is indicated Please note: this error is temporarily suspended until a future date |
| 685 | Years on Current Job or Months on Current Job for Borrower 3 must be numeric and greater than zero if employment is indicated Please note: this error is temporarily suspended until a future date |
| 690 | Years on Current Job or Months on Current Job for Borrower 4 must be numeric and greater than zero if employment is indicated Please note: this error is temporarily suspended until a future date |

| | |
|-----|--|
| 695 | Years on Current Job or Months on Current Job for Borrower 5 must be numeric and greater than zero if employment is indicated Please note: this error is temporarily suspended until a future date |
|-----|--|