



---

# Affordable Care Act (ACA) Information Returns (AIR) Submission Composition and Reference Guide

---



## Change/Document History

---

## Table of Contents

---

1	Introduction.....	1
1.1	Identification .....	1
1.2	Scope .....	1
1.3	Purpose .....	2
1.4	Document Organization .....	2
1.5	Related Documents.....	3
2	Interface Overview.....	4
2.1	ISS-UI Channel .....	4
2.2	ISS-A2A Channel.....	5
3	Composing IRS ACA Information Returns Transmission.....	6
3.1	Namespace and Prefix.....	6
3.2	Guidelines for Composing IRS Form Data File.....	7
3.3	IRS Form Data File Naming Convention.....	8
3.4	Structure of IRS Form Data File.....	9
3.4.1	Transmission XML Elements.....	10
3.4.2	Uniquely Identifying Transmissions, Submissions, and Records.....	14
3.4.3	Computing Checksum .....	16
4	Transmitting IRS ACA Form Data File and Retrieving Acknowledgment via the ISS-UI Channel.....	17
4.1	Transmitter Operations .....	17
4.2	Transmitting UI Files to IRS .....	17
4.2.1	Sample Manifest File.....	19
4.2.2	Sample Form Data File.....	21
4.3	Retrieving Acknowledgment from IRS .....	24
4.4	Transmitter IRS Form Data File Specification .....	27
4.5	Transmitting Information Returns to IRS.....	27
4.5.1	Validation of IRS Form Data File .....	28
4.5.2	Processing of IRS Form Data File .....	29
4.6	Retrieving Status of the Transmission through UI.....	29
4.7	IRS Error Data File .....	31
4.8	UI Channel TY2015, TY2016, TY2017 and TY2018 Schemas.....	33
5	Transmitting IRS ACA Form Data File and Retrieving Acknowledgment via the ISS-A2A Channel ...	35
5.1	Message Compression .....	35
5.2	Basic SOAP Message Structure .....	35
5.2.1	Creating the SOAP Envelope .....	36
5.2.2	SQL Injection in the SOAP Message .....	37
5.3	SOAP Header .....	38
5.3.1	WS-Security .....	38
5.3.2	ACA Transmitter Business Header Elements .....	50
5.3.3	ACA AIR Transmission Manifest .....	51
5.4	SOAP Body .....	51
5.4.1	Message Attachment File Format .....	51
5.4.2	Message Attachment Content Type .....	52
5.5	ISS-A2A Web Services Summary.....	52
5.5.1	Overview of Transmission and Submission .....	53
5.5.2	IRS-ACA Submit Transmission Request Message .....	55
5.5.3	IRS-ACA Retrieve Acknowledgement Request Message .....	56
5.5.4	A2A Channel TY2015, TY2016, TY2017, and TY2018 Schema/WSDL Guidance .....	58
6	Identifying Transmissions and Records .....	60
6.1	Identifying the Transmission Type .....	60
6.2	Identifying the Transmission Status (Acknowledgement) .....	61
6.3	Receipt ID or UTID as Basis for Uniquely Identifying Transmissions and Records .....	63

6.3.1 Uniquely Identifying Forms 1094 within a Transmission .....	64
6.3.2 Uniquely Identifying Forms 1095 within a Transmission .....	66
6.4 Identifying Records with Errors .....	67
6.5 Corrections and Replacements.....	68
6.5.1 The Correction Process .....	68
6.5.2 Transmitting Corrections .....	69
6.5.3 Transmitting Form 1094-C Corrections (Authoritative Transmittals Only).....	70
6.5.4 Transmitting Forms 1095-B or 1095-C Corrections.....	71
6.5.5 Transmitting Forms 1094-C and Forms 1095-C Corrections .....	71
6.6 Rejected Transmissions .....	71
6.6.1 Transmissions Rejected by IRS Portal .....	72
6.6.2 Transmissions/Submissions Rejected by AIR .....	72
6.7 Replacement Process - Transmitting Replacements.....	73
6.7.1 Replacement Transmission .....	73
6.7.1.1 Replacing an Original Transmission that Rejected.....	74
6.7.1.2 Replacing a "Replacement" Transmission that Rejected .....	74
6.7.2 Replacement Submission .....	75
6.7.2.1 Replacing Submission Within a Partially-Accepted Transmission .....	76
6.7.2.2 Replacing Submission from a PartiallyAccepted Original Transmission when the Replacements Transmission or Submission was Rejected.....	76
7 Data Mapping for ISS-UI Services/ISS-A2A Web Services .....	79
7.1 Data Mapping – Message Data Boundary .....	79
7.2 Data Mapping – Form Data Boundary .....	84
8 Example ISS-A2A Web Service Messages .....	98
8.1 Transmitter Services SOAP Message Elements .....	98
8.1.1 IRS-ACASubmitService SOAP Request Message – Manifest Header (ACAGetTransmitterBulkRequestService.wsdl) .....	98
8.1.2 IRS-ACASubmitService SOAP Request Message – Form Data File (ACAGetTransmitterBulkRequestService.wsdl) .....	100
8.1.3 IRS-ACASubmitService SOAP Response Message (ACAGetTransmitterBulkRequestService.wsdl) .....	103
8.1.4 IRS-ACAAckngService SOAP Request Message (ACAGetTransmitterBulkRequestStatus.wsdl) .....	104
8.1.5 IRS-ACAAckngService SOAP Response Message – Manifest Header (ACAGetTransmitterBulkRequestStatus.wsdl) .....	104
8.1.6 IRS- ACAAckngService SOAP Response Message – Error Data File (ACAGetTransmitterBulkRequestStatus.wsdl) .....	105
9 General Philosophy on Data Elements in XML Schemas .....	106
10 Validating a Transmission against XML Schema.....	107
10.1 Structure of Transmission .....	107
10.2 Validation of Transmission.....	107
10.3 Validating the Transmission Envelope Including Contents.....	108
10.4 How Errors are Reported .....	109
11 Reporting Business Rule Validation Errors .....	111
11.1 Overview .....	111
11.2 Data Validation and Error Reporting .....	111
11.2.1 Processing Status.....	111
11.2.2 Error and Business Rule Library .....	112
12 SOAP Fault Response Messages.....	113
12.1 ISS-Portal Error Codes and Messages.....	113
Appendix A - Acronyms and Abbreviations .....	125

## LIST OF TABLES

Table 3-1: Prefix and Target Namespaces .....	6
Table 3-2: Transmission Manifest XML Elements .....	10
Table 4-1: Forms to XML Schema File Mapping .....	28
Table 4-2: Transmission Processing Status Included in Acknowledgement .....	29
Table 5-1: Characters not allowed due to SQL Injection Concerns.....	37
Table 5-2: IRS Authorized Certificate Issuing Authorities .....	50
Table 5-3: Transmitter Business Header Elements .....	50
Table 5-4: Transmission SOAP Message Binding – SOAP Request Message Header .....	55
Table 5-5: Transmission SOAP Message Binding – SOAP Request Message Body .....	56
Table 5-6: Transmission SOAP Message Binding – SOAP Response Message Header.....	56
Table 5-7: Transmission SOAP Message Binding – Soap Response Message Body .....	56
Table 5-8: Status Request SOAP Message Binding – SOAP Request Message Header .....	57
Table 5-9: Status Request SOAP Message Binding – SOAP Request Message Body.....	57
Table 5-10: Status SOAP Message Binding – SOAP Request Message Header.....	57
Table 5-11: Transmission SOAP Message Binding – Soap Response Message Body .....	58
Table 6-1: Transmission Type Codes .....	60
Table 6-2: Unique Submission Identifier .....	65
Table 6-3: Unique Record Identifier .....	67
Table 6-4: Error Data File Contents .....	67
Table 7-1: Form 1094-1095 B and C Transmission SOAP Request Header – ACA Business Header .....	80
Table 7-2: Form 1094-1095 B and C Transmission SOAP Request Manifest Header .....	80
Table 7-3: Form 1094-1095 B and C Transmission SOAP Response .....	82
Table 7-4: Form 1094-1095 B and C Acknowledgement SOAP Request to check the Status of the Transmission.....	83
Table 7-5: Form 1094-1095 B and C Transmission SOAP Response Header .....	83
Table 7-6: Form 1094-1095 B and C Transmission SOAP Request Header – ACA Business Header .....	83
Table 7-7: Form 1094-B .....	84
Table 7-8: Form 1095-B .....	85
Table 7-9: Form 1094-C .....	91
Table 7-10: Form 1095-C .....	94

## LIST OF FIGURES

Figure 2-1: External Clients and IRS AIR .....	4
Figure 3-1: Structure of IRS Form Data File [B and C] .....	9
Figure 3-2: Unique Transmission Identifier (UTID) .....	14
Figure 3-3: Unique Submission Identifier .....	16
Figure 3-4: Unique Record Identifier .....	16
Figure 4-1: ISS-UI Channel Features .....	17
Figure 4-2: ISS-UI Channel Transmission Submission Screen .....	18
Figure 4-3: ISS-UI Channel Transmission Submission Screen .....	19
Figure 4-4: Sample Manifest File .....	21
Figure 4-5: Sample Form Data File .....	24
Figure 4-6: Transmission Status Search Page .....	24
Figure 4-6a: Transmission Status Search Page (TCC and Receipt ID) .....	25
Figure 4-6b: Transmission Status Search Page (UTID) .....	25
Figure 4-7: A2A Check Status using UTID Request .....	26
Figure 4-8: A2A Check Status using UTID Response to Transmitter .....	26
Figure 4-9: ISS-UI Channel Transmission Status Results Screen .....	29
Figure 4-10: Example of Acknowledgement via ISS-UI Channel .....	32
Figure 4-11: Error Data XML File .....	33
Figure 5-1: Basic SOAP Message Structure .....	36
Figure 5-2: High Level Form schema structure .....	54
Figure 5-3: ACA Binding – ACAGetTransmitterBulkRequestService.wsdl .....	55

Figure 5-4: ACA Binding – ACAGetTransmitterBulkRequestStatus.wsdl.....	57
Figure 6-1: Identifying the Transmission Status Code .....	62
Figure 6-2: Structure of a Receipt ID .....	63
Figure 6-3: Sample AIR ISS-A2A Transmission Intake Response Message .....	64
Figure 6-4: Sample AIR ISS-UI Transmission Intake Response Message .....	64
Figure 6-5: Submission Id is Required for Every Form 1094 in the Transmission .....	65
Figure 6-6: Form 1094-C XML Schema Including RecordId.....	66
Figure 6-7: Reference Records to be Corrected.....	69
Figure 6-8: Replacing a Rejected Transmission .....	75
Figure 6-9: Visual depicting the first-rejected submission in a chain of rejections that should be replaced .....	77
Figure 6-9A: Visual showing the first-rejected submission should be replaced when the replacement transmission is rejected.....	78



# 1 Introduction

---

The ACA Information Returns (AIR) Project is responsible for delivering applications, infrastructure, and supporting processes required to process information returns. In January 2016, filing Forms 1094/1095-B and Forms 1094/1095-C became mandatory. Internal Revenue Service (IRS) will begin accepting TY2018 Forms 1094/1095-B and Forms 1094/1095-C, as well as original prior year forms and corrections, in January 2019.

AIR has two transmission methods: an Application-to-Application (A2A) channel and a Web Browser-based User Interface (UI) channel. AIR will perform structural and initial data validations on the information returns. Both the A2A and UI channels will also support requests for status responses (was the transmission accepted or rejected).

## 1.1 Identification

The purpose of this document is to provide guidance to all types of external transmitters about composing and successfully transmitting compliant submissions to IRS. The audience of this document is:

- Issuer – A business filing their own ACA Information Returns regardless of whether they are required to file electronically (transmit 250 or more of the same type of information return) or volunteer to file electronically. The term issuer includes any person required to report coverage on Form 1095-B and any applicable large employer required to report offers of coverage on Form 1095-C and file associated transmittals Form 1094-B or 1094-C.
- Transmitter – A third-party sending the electronic information return data directly to IRS on behalf of any business required to file. (**Note:** If you are transmitting returns for your own company, in addition to transmitting returns on behalf of another business, you do not need both the Transmitter and Issuer role. You can file all returns as a Transmitter.)
- Software Developer – An organization writing either origination or transmission software according to IRS specifications.

Issuers, Transmitters, and Software Developers are collectively referred to as transmitters throughout this document. Please note that not all transmitters are software developers and vice versa but some of them can be both.

## 1.2 Scope

This document covers details on composing and submitting Forms 1094/1095-B and Forms 1094/1095-C by transmitters to IRS. The scope of the document addresses the A2A-application based via SOAP messages exchanged between client and exposed Web Service endpoints and the Web UI-browser-based requiring human initiation. This publication is a living document that will be amended and updated each Tax Year/Filing Season and as deemed necessary. When updates are made to the schema package for the A2A and UI channels, this publication will be updated accordingly.

AIR accepts the following information return transmittals and documents for TY2016, TY2017 and TY2018 in Processing Year (PY) 2019:

- Form 1094-B, Transmittal of Health Coverage Information Returns
- Form 1095-B, Health Coverage
- Form 1094-C, Transmittal of Employer-Provided Health Insurance Offer and Coverage Information Returns
- Form 1095-C, Employer-Provided Health Insurance Offer and Coverage

AIR will process each submission and provide a status and detailed Acknowledgement for the Transmitter. Generally, the Forms 1095-B and 1095-C will be submitted with their associated transmittals, Forms 1094-B and 1094-C. However, in the case where a previously submitted and processed Form 1094-C, Authoritative Transmittal, requires a correction, the corrected Form 1094-C, Authoritative Transmittal, must be submitted alone without any accompanying Form 1095-C records.

## 1.3 Purpose

The purpose of this document is to provide sufficient technical information to the transmitters so that they are able to compose and submit valid submissions comprised of Forms 1094/1095-B and Forms 1094/1095-C. The document addresses how the Receipt ID is transmitted from AIR to the Transmitter, as part of the synchronous session initiated by the Transmitter to submit the submission, and how the Receipt ID forms the basis for uniquely identifying Form 1094 and Form 1095 records within a transmission.

## 1.4 Document Organization

This document is structured in sections as described below:

- **Section 1: Introduction** – Outlines the purpose and scope of the document along with the appropriate reference documents.
- **Section 2: Interface Overview** – Provides an overview of the ISS User Interface and ISS A2A Interface channels.
- **Section 3: Composing IRS ACA Information Returns Transmission** – Describes how to compose an Information Return for IRS by a transmitter.
- **Section 4: Transmitting IRS ACA Form Data File and Retrieving Acknowledgment via the ISS UI Channel** – Provides the details for using IRS Portal's User Interface channel to upload information returns.
- **Section 5: Transmitting IRS ACA Form Data File and Retrieving Acknowledgment via the ISS-A2A Channel** – Provides the details for using IRS Application-to-Application SOAP web service interface to submit information returns to IRS.
- **Section 6: Identifying Transmissions and Records** – Provides details on Transmission Type Codes, Transmission Status, Receipt Ids and details on how to submit Correction and Replacement Transmissions.
- **Section 7 Data Mapping for ISS-UI Services/ISS-A2A Web Services** – Illustrates data elements, their relationship and mappings.
- **Section 8: Example ISS-A2A Web Service Messages** – Provides an example of a SOAP message containing one or more information returns.

- **Section 9: General Philosophy on Data Elements in XML Schemas** – Discussion on various aspects of data elements in the XML (Extensible Markup Language) schema.
- **Section 10: Validating a Transmission against XML Schema** – Describes XML validation rules.
- **Section 11: Reporting Business Rule Validation Errors** – Describes business rules associated with XML.
- **Section 12: SOAP Fault Response Messages** – SOAP fault messages are described in this section.
- **Appendix A: Acronyms and Abbreviations**

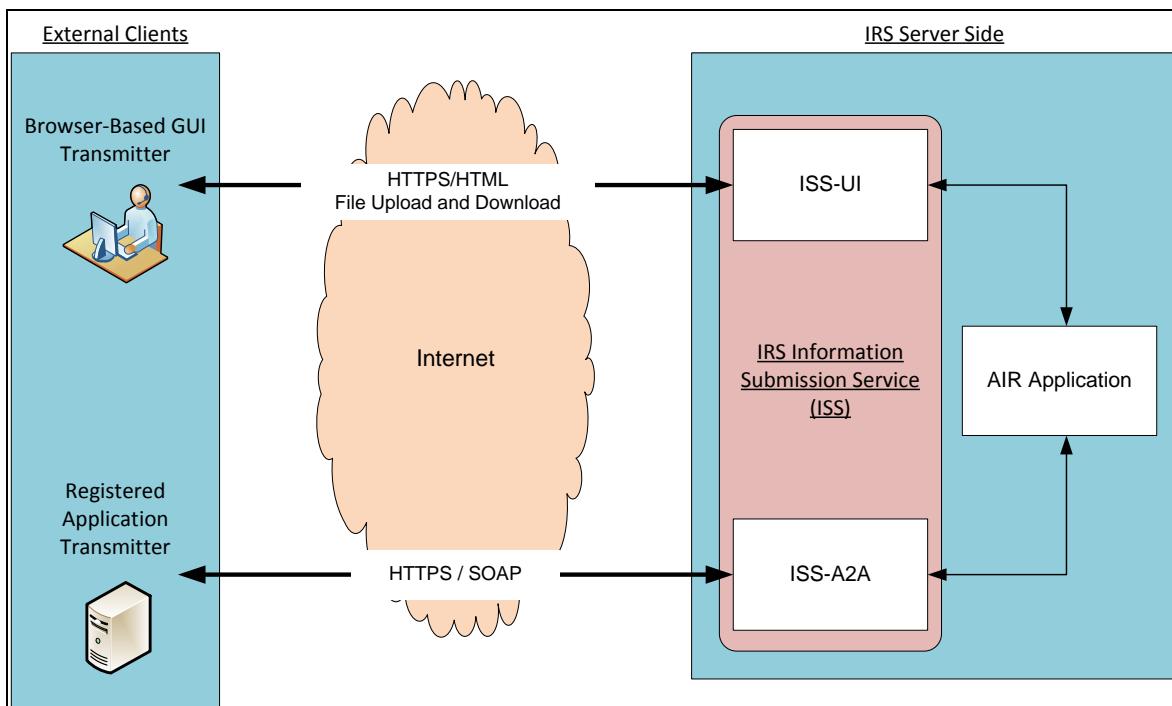
## 1.5 Related Documents

Following documents are related with this guide:

- [Publication 5165, Guide for Electronically Filing Affordable Care Act \(ACA\) Information Returns for Software Developers and Transmitter](#)
- [Publication 5164, Test Package for Electronic Filers of Affordable Care Act \(ACA\) Information Returns](#)
- [Publication 5308, Automated Enrollment Guide for ACA Providers- The External Guide](#)
- Online documentation related to Forms 1094/1095-B and Forms 1094/1095-C are available at [Affordable Care Act Information Returns \(AIR\) Program](#)
- Form 1094-B - <http://www.irs.gov/uac/About-Form-1094-B>
- Form 1095-B - <http://www.irs.gov/uac/About-Form-1095-B>
- Form 1094-C - <http://www.irs.gov/uac/About-Form-1094-C>
- Form 1095-C - <http://www.irs.gov/uac/About-Form-1095-C>

## 2 Interface Overview

The data is exchanged between Transmitters and IRS via Simple Object Access Protocol (SOAP) messages with Message Transmission Optimization Mechanism (MTOM) attachment or via XML file upload using the Transmitter's web browser. MTOM is a [World Wide Web Consortium](#) (W3C) standard that provides a method of efficiently sending binary data to and from Web services. The SOAP data structures and XML Schema are specified in this document. As illustrated in Figure 2-1, there are two data communication channels between the external clients and IRS.



**Figure 2-1: External Clients and IRS AIR**

### 2.1 ISS-UI Channel

In this channel, information returns are uploaded as XML files using the HyperText Transfer Protocol (HTTP) over Transport Layer Security (TLS). A user interface is exposed in IRS portal where a user will login and, if authenticated and authorized, will be allowed to upload files containing information returns.

Both Schema's and sample XML are part of schema package posted on IRS.gov

Transmitters must upload two xml files

1. Manifest file: To create Request Manifest file: Transmitters should use Schema IRS-ACAUUserInterfaceHeaderMessage.xsd to add/create “ACA Business Header” and “Request Manifest Details”

```

<xsd:element ref="acabushdr:ACABusinessHeader"/>
<xsd:element ref="airty17:ACATransmitterManifestReqDtl" />

    • Element ACABusinessHeader definition defined in IRS-ACABusinessHeaderMessage.xsd
    • Element ACATransmitterManifestReqDtl definition defined in IRS-EXT-ACA-AIR-1094BC.xsd

```

2. Form Data File: (1094/1095-[B,C])

- IRS-Form1094-1095BTransmitterUpstreamMessage.xsd
- IRS-Form1094-1095CTransmitterUpstreamMessage.xsd

Note: The Manifest file is created using the “IRS-ACAUUserInterfaceHeaderMessage.xsd”, which is uploaded via the ISS-UI Channel. The resulting Manifest file will include both the Manifest Header and the ACA Business Header and will be ready to upload.

## 2.2 ISS-A2A Channel

In this channel, information returns are sent as SOAP messages with a MTOM-encoded attachment and HTTP gzip compression (see Section 5.1 for more details on HTTP Message Compression) using the SOAP Web Services request-response model. A web service endpoint is exposed in the external-facing IRS portal. The SOAP message will carry the credentials for authentication and authorization. The information returns are transmitted in the file as the **MTOM-encoded** attachment.

## 3 Composing IRS ACA Information Returns Transmission

---

An IRS transmission consist of two parts: the Manifest and the Form Data File.

- The Manifest contains information about the transmitter, transmission and the payload
- The Form Data File contains one or more submissions in XML format
- A submission is either:
  - **One Form 1094-B and one or more Form 1095-Bs or**
  - **One Form 1094-C and one or more Form 1095-Cs or**
  - **One Form 1094-C, Authoritative Transmittal, and zero Form 1095-Cs, whenever the Form 1094-C, Authoritative Transmittal, is marked as a correction (for a previously submitted 1094-C)**

Each transmission will have either Forms 1094/1095-B or Forms 1094/1095-C. The transmission may not contain comingled B and C submissions. This section covers composing the Form Data File only. In the context of Forms 1095-B and 1095-C, the recipient is referred to as payee.

### 3.1 Namespace and Prefix

XML namespaces are used for providing uniquely named elements and attributes in an XML document. An XML instance may contain element or attribute names from more than one XML vocabulary. If each vocabulary is given a namespace, the ambiguity between identically named elements or attributes can be resolved to avoid collisions that can occur when markup intended for another software package uses the same element name or attribute name.

The following table identifies the target namespace associated with the various prefixes for ACA Forms 1094/1095-B and Forms 1094/1095-C request and response messages. Namespaces and prefixes may change between versions of IRS-published schemas. The most recent IRS-published schema must always be used.

Note: Transmitters can use their own namespace/prefix but make sure that the usage matches the definition.

**Table 3-1: Prefix and Target Namespaces**

Namespace	Prefix	Uses
urn:us:gov:treasury:irs:srv:gettransmitterbulkrequest	acaSoapReq	SOAP message
urn:us:gov:treasury:irs:msg:irsacabulkrequesttransmitter	acaBodyReq	SOAP message
urn:us:gov:treasury:irs:msg:acabusinessheader	acaBusHeader	SOAP message
urn:us:gov:treasury:irs:msg:acasecurityheader	acaSec	SOAP message
urn:us:gov:treasury:irs:msg:irstransmitterstatusrequest	acaStsReq	SOAP message
urn:us:gov:treasury:irs:common	irs	SOAP message/Form
urn:us:gov:treasury:irs:ext:aca:air:ty17		Form
urn:us:gov:treasury:irs:msg:form1094-	form109495BC	Error Data File

Namespace	Prefix	Uses
1095BCtransmittermessage		
urn:us:gov:treasury:irs:msg:form1094-1095Btransmitterupstreammessage	form109495B	SOAP message
urn:us:gov:treasury:irs:msg:form1094-1095Ctransmitterupstreammessage	form109495C	SOAP message

## 3.2 Guidelines for Composing IRS Form Data File

The content file or payload contains records, (i.e. Form 1094) along with one or more associated Forms 1095. Below are general guidelines for composing the Form Data File which contains either Forms 1094/1095-B submissions or Forms 1094/1095-C submissions, but not both:

1. The Form Data File can only contain valid uncompressed and unencrypted XML
2. The Form Data File cannot exceed 100 MB in size
3. Only one IRS Form Data File is allowed as an attachment to a transmission
4. A submission structure consists of a Form 1094 (transmittal) and one or more associated Form 1095 records according to the following rules:
  - a) A Form 1094-B transmittal and at least one or more Form 1095-B
  - b) A Form 1094-C transmittal and at least one or more Form 1095-C. (Exception – A Form 1094-C, Authoritative Transmittal, can be submitted without including a Form 1095-C and still be considered a valid submission, only in the case where the Form 1094-C, Authoritative Transmittal, is a correction to a previously submitted and processed Form 1094-C. Corrected Forms 1094-C, Authoritative Transmittal, must be submitted without including any Forms 1095-C)
5. A transmission will contain at least one submission or as many within the 100 MB maximum payload file size allows
6. A transmission cannot comingle Forms 1094/1095-B submissions and Forms 1094/1095-C submissions otherwise it will be rejected
7. The XML Schema requires two attributes that when missing cause a transmission to be rejected by IRS. The following attributes are defined in the XML Schema and must be present on each record in the Form Data File:

```
<xsd:attribute name="recordType" type="xsd:string" use="required"/>
<xsd:attribute name="LineNum" type="xsd:integer" use="required"/>
```

For every record, recordType must be “String” (word) or “” and lineNum must be 0 (zero). The content files Root elements: must have the attributes as depicted and highlighted for the Form1094BUpstreamDetail:

```
<?xml version="1.0" encoding="UTF-8"?>
<n1:Form109495BTransmittalUpstream
  xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty17"
  xmlns:irs="urn:us:gov:treasury:irs:common"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
```

```

  xmlns:n1="urn:us:gov:treasury:irs:msg:form1094-
  1095Btransmitterupstreammessage"
  xsi:schemaLocation="urn:us:gov:treasury:irs:msg:form1094-
  1095Btransmitterupstreammessage IRS-Form1094-
  1095BTransmitterUpstreamMessage.xsd">
  <Form1094BUpstreamDetail recordType="String" lineNum="0">
    <SubmissionId>1</SubmissionId>
    <irs:TaxYr>2015</irs:TaxYr>

```

Each 1095 record must also have the attributes as depicted and highlighted for the Form1095CUpstreamDetail below:

```

  <Form1095CUpstreamDetail recordType="String" lineNum="0">
    <RecordId>1</RecordId>

```

### 3.3 IRS Form Data File Naming Convention

The Form Data file naming convention defined in the efile Type *AIRDocumentSystemFileNmType* includes the Form Type, a static indicator (Request), the Transmitter Control Code (TCC), the date and time (in GMT time) the transmitter submits the file. The name specifically includes the following components:

1094<form type>\_Request\_<TCC>\_<Date>T<TimeStamp>Z.xml

For example:

1094B\_Request\_XXXXX\_20140101T010102000Z.xml  
1094C\_Request\_XXXXX\_20140101T010102000Z.xml

(Note: Please use the timezone generated by your system and not the example provided here.)

The XML naming pattern to be used to create Form Data files is as follows:

```

<xsd:pattern value="1094[B/C]_Request_[B-DF-HJ-NP-TV-
Z]{2}[B-DF-HJ-NP-TV-Z0-9]{3}_[1-9][0-9]{3}(0[1-9]/1[0-
2])(0[1-9]/[1-2][0-9]/3[0-1])T(0[0-9]/1[0-9]/2[0-3])(0[0-
9]/[1-5][0-9])(0[0-9]/[1-5][0-9])[0-9]{3}Z\.xml">
</xsd:pattern>

```

### 3.4 Structure of IRS Form Data File

The Form Data File is structured in a hierarchical fashion, i.e. the file contains one or more submissions. Each submission will have exactly one Form 1094 and one or more associated Form 1095 (Exception: Form 1094-C, Authoritative Transmittal, must be submitted alone when the transmittal is marked as a correction). In the example shown below there are total of three submissions with 2, 1, and 3 Form 1095 records respectively:

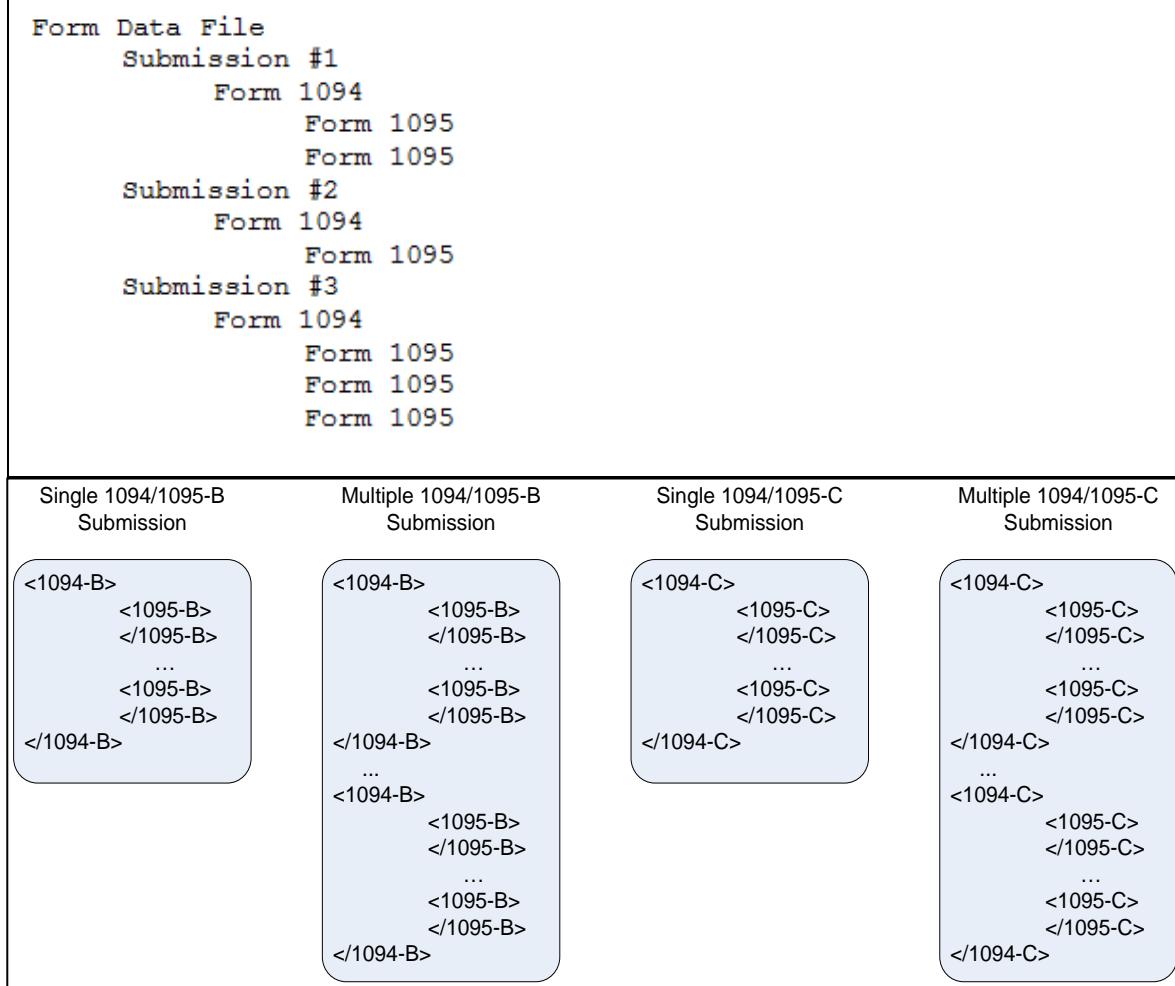


Figure 3-1: Structure of IRS Form Data File [B and C]

### 3.4.1 Transmission XML Elements

The following table provides details of XML elements that the XML Schema requires in the Manifest Header of the SOAP message when transmitting information returns to IRS.

**Table 3-2: Transmission Manifest XML Elements**

Element Name	eFile Type	eFile Type Definition	Required ?	minOccurs	maxOccurs	Description
<i>PaymentYr</i>	<i>YearType</i>	string pattern "[1-9][0-9]{3}"	Yes	1	1	This is the tax year for which the information return is being reported.
<i>PriorYearDataInd</i>	<i>DigitBooleanType</i>	enumerated string value="0" value="1"	Yes	1	1	"0" for current filing year "1" for prior filing year
<i>EIN</i>	<i>EINType</i>	string pattern "[0-9]{9}"	Yes	1	1	Employer Identification Number belonging to the transmitter
<i>TransmissionTypeCd</i>	<i>TransmissionTypeCdType</i>	enumerated string value="O" value="C" value="R"	Yes	1	1	Type of records: "O" - Original "C" - Corrections "R" - Replacement
<i>TestFileCd</i>	<i>TestFileCdType</i>	string Pattern "( [TP] )?"	Yes	1	1	"T" - AATS "P" - Production
<i>OriginalRec</i>	<i>String80Typ</i>	string	No	0	1	Reference to the

Element Name	eFile Type	eFile Type Definition	Required ?	minOccurs	maxOccurs	Description
<i>eiptId</i>	e	maxLength value="80"				Receipt ID of the transmission for which replacement transmissions are submitted - Do not include XML tags on transmissions with original records
<i>Transmitter ForeignEntityInd</i>	<i>DigitBooleanType</i>	enumerated string value="0" value="1"	No	0	1	"1" identifies the transmitter as a foreign entity, Do not include XML tags if transmitter is not a foreign entity
<i>Transmitter NameGrp</i>	<i>BusinessNameType</i>	Complex Element	Yes	1	1	The transmitter's name
<i>CompanyInformationGrp</i>	<i>CompanyInformationGrpType</i>	Complex Element	Yes	1	1	The transmitter address, name of the company to contact, and phone number to call
<i>VendorInformationGrp</i>	<i>VendorInformationGrpType</i>	Complex Element	Yes	1	1	Identifies if software was developed by a vendor (V) or in-house (I) as well as contact information regarding the software

Element Name	eFile Type	eFile Type Definition	Required ?	minOccurs	maxOccurs	Description
<i>TotalPayeeRecordCnt</i>	<i>TotalNumberType</i>	nonNegativeInteger	Yes	1	1	The total number of Forms 1095 included in the entire transmission
<i>TotalPayerRecordCnt</i>	<i>TotalNumberType</i>	positiveInteger	Yes	1	1	The total number of Forms 1094 included in the entire transmission
<i>SoftwareId</i>	<i>SoftwareIdNumberType</i>	"StringWithNoHashCharacterType" maxLength value="10"	Yes	1	1	The Software ID assigned to the software when the software was registered with IRS
<i>FormTypeCd</i>	<i>FormNameType</i>	enumerated string value="1094/1095B" value="1094/1095C"	Yes	1	1	Will contain "1094/1095B" if Forms 1094/1095-B are included in the transmission or "1094/1095C" if Forms 1094/1095-C are included in the transmission
<i>BinaryFormatCd</i>	<i>BinaryFormatCodeType</i>	enumerated string value="application/xml"	Yes	1	1	Will contain "application/xml"
<i>ChecksumAugmentationNm</i>	<i>SHA256Type</i>	string pattern "[0-9A-Fa-f]{64}"	Yes	1	1	The SHA256 Checksum computed on the Form Data File attached to the transmission
<i>AttachmentB</i>	integer	integer	Yes	1	1	The size in bytes

Element Name	eFile Type	eFile Type Definition	Required ?	minOccurs	maxOccurs	Description
<i>byteSizeNum</i>						of the Form Data File attached to the transmission
<i>DocumentSystemFileNameType</i>	<i>AIRDocumentsystemFileType</i>	<pre> String value="1094[B/C]_Request_[B-DF-HJ-NP-TV-Z]{2}[B-DF-HJ-NP-TV-Z0-9]{3}_[1-9][0-9]{3}(0[1-9] 1[0-2])(0[1-9] 1[2-9])[0-9] 3[0-1])T(0[0-9] 1[0-9] 2[0-3])(0[0-9] 1[5-9])[0-9] 1[5-9])[0-9]{3}Z\.xml" </pre>	Yes	1	1	The name of the Form Data File attached to the transmission

### 3.4.2 Uniquely Identifying Transmissions, Submissions, and Records

The XML Schemas for Forms 1094/1095-B and Forms 1094/1095-C include elements designed to uniquely identify ACA Information Returns transmission, submission within the transmission, and records within the submission. The transmitter that generates the Form Data File for transmissions to IRS must generate these IDs and maintain them along with their associated transmissions. Unique IDs are used to simplify and increase the precision of communications, corrections, and replacements.

The Transmitter will uniquely identify each transmission by the **Unique Transmission Identifier (UTID)** in the header.

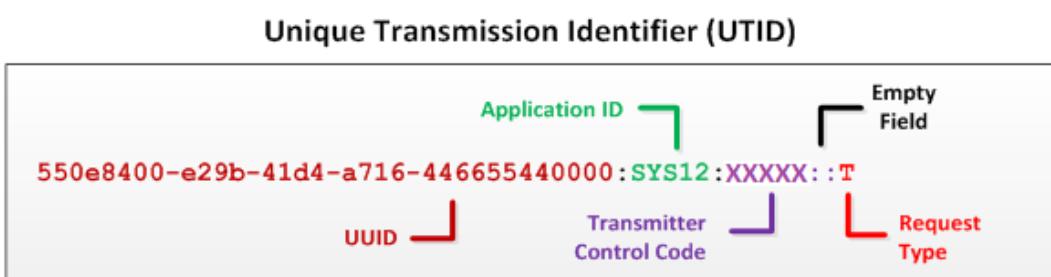
The format for the UTID includes various fields separated by colons (:) is as follows:

- UUID – a **universally unique identifier** (UUID) is an identifier standard defined by the Internet Engineering Task Force (IETF) in Request For Comments (RFC) 4122. The UUID consists of a 16-octet (128-bit) number. This is a mandatory field. In its canonical form, a UUID is represented by 32 hexadecimal digits, displayed in five groups separated by hyphens, in the form 8-4-4-4-12 for a total of 36 characters (32 digits and four hyphens). For example:

**550e8400-e29b-41d4-a716-44665540000**

- Application ID – the Application ID will be **SYS12** and is a mandatory field.
- Transmitter Control Code – is 5 characters alphanumeric field that will contain the Transmitter's TCC and is mandatory – enter the TCC that IRS assigned when the Transmitter applied to electronically file Forms 1094/1095-B and Forms 1094/1095-C. Note: TCCs do not include lower case characters.
- Reserved – is an empty field
- Request Type – the Request Type defines the types of request which must be “T” (Transactional) and is mandatory

The UTID for the transmission (always 51 bytes) will be (see Figure 3-2: Unique Transmission Identifier below):



**Figure 3-2: Unique Transmission Identifier (UTID)**

A transmission will contain one or more Forms 1094/1095-B submissions (transmittals/payee records) or one or more Forms 1094/1095-C submissions (transmittals/payee records) or only one Form 1094-C, Authoritative Transmittal (when marked as a correction for a previously submitted Form 1094-C). A transmission may not contain comingled B and C submissions. The Submission Identifier (SID) construct is applicable to all submissions (Forms 1094) within a transmission whether that transmission contains B or C Information Returns. Each submission will include an SID that will start at one and increment by one for each subsequent submission in the transmission.

**SID = 1,2,3,4,5..**

A submission will contain one or more Form 1095 Information Returns along with its corresponding Transmittal Form 1094, unless it is a Corrected 1094-C. The Record Identifier (RID) construct is applicable to all Form 1095 records within a submission, regardless of whether that Submission contains Forms 1095-B or Forms 1095-C Information Returns. Each Form 1095 record in a submission will include a RID that will start at one and increment by one for every subsequent record in the submission.

**RID = 1,2,3,4..n (e.g. 2, 17, 31, 86, 1023, 9842, ...)**

When IRS successfully receives a transmission for processing, a unique Receipt ID is generated by IRS which uniquely identifies the transmission. The Receipt ID is used by the transmitter to retrieve the processing status of the transmission after it is processed. In addition, IRS uses the Receipt ID along with the submission and record IDs to uniquely identify the records in a transmission.

**RECEIPTID = 1094B-19-00001234  
RECEIPTID = 1094C-19-00044923  
RECEIPTID = 1094C-19-00000385**

When an error is identified, both Form 1094 and Form 1095 records are uniquely identified within a transmission by concatenating the Receipt ID, SID, and RID (as applicable) and returning them to the transmitter as follows:

**UniqueSubmissionId = RECEIPTID|SID  
UniqueRecordId = RECEIPTID|SID|RID**

Unique Submission Identifier (USID) and Unique Record Identifier (URID) enable:

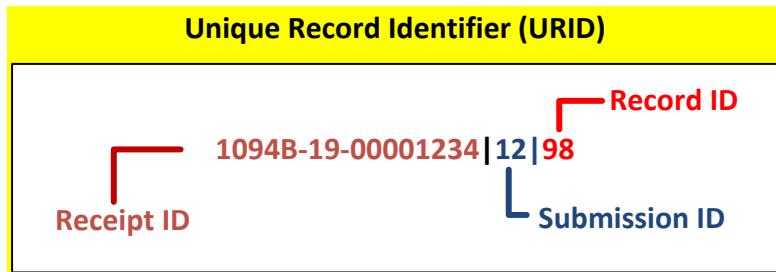
- IRS to report errors to transmitters that are clearly related to the specific record(s) within the submission and the transmission
- Transmitters to send corrected records to IRS precisely identifying the record to be corrected
- Both IRS and transmitters to track transmissions and submissions

For example, the Form 1094 data located in submission 12 of a transmission would have a USID as follows:



**Figure 3-3: Unique Submission Identifier**

The 1095 data located in record 98 of submission 12 of a transmission would have a URID as follows:



**Figure 3-4: Unique Record Identifier**

### 3.4.3 Computing Checksum

**All PY2019 transmissions (Production and AATS) must use the SHA-256 Checksum algorithm.** There are many algorithms readily available that can be used to calculate an SHA-256 Checksum:

- The algorithm that a transmitter uses will differ depending on their technology stack. For example, if the transmitter is building the interface on Windows/.NET Framework, they will need to obtain a SHA-256 Checksum algorithm that runs on the Windows platform. If the transmitter is building their interface on Linux/Java, they will need to obtain a SHA-256 Checksum that runs on the Linux platform.
- Element checksum at manifest - algorithm should be SHA-256 which will generate 64 characters. Every transmission "Checksum" value should be 64 characters. Checksum will be used to identify duplicate transmissions "Accepted", "Accepted with Errors" and "Partially Accepted".

## 4 Transmitting IRS ACA Form Data File and Retrieving Acknowledgment via the ISS-UI Channel

The ISS-UI Channel is a Web Browser based user interface that allows transmitters to submit Form Data Files to IRS and retrieve acknowledgments. The purpose of this section is to describe the requirements for submitting an ACA Information Return Form Data File to IRS via the UI Channel.

### 4.1 Transmitter Operations

As shown below, Figure 4-1: ISS-UI Channel Features, the operations available to transmitters, provided by the ISS-UI Channel are: A) Upload ACA Forms, and B) Check Transmission Status.

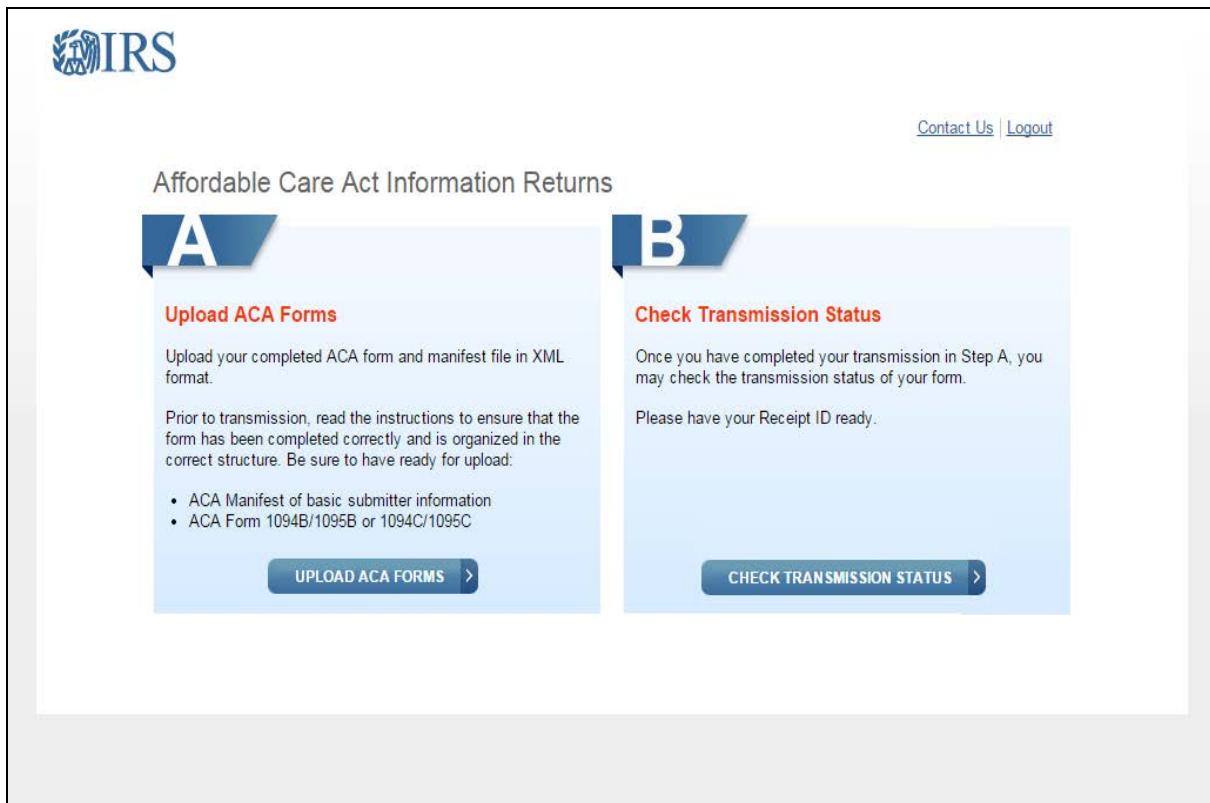


Figure 4-1: ISS-UI Channel Features

### 4.2 Transmitting UI Files to IRS

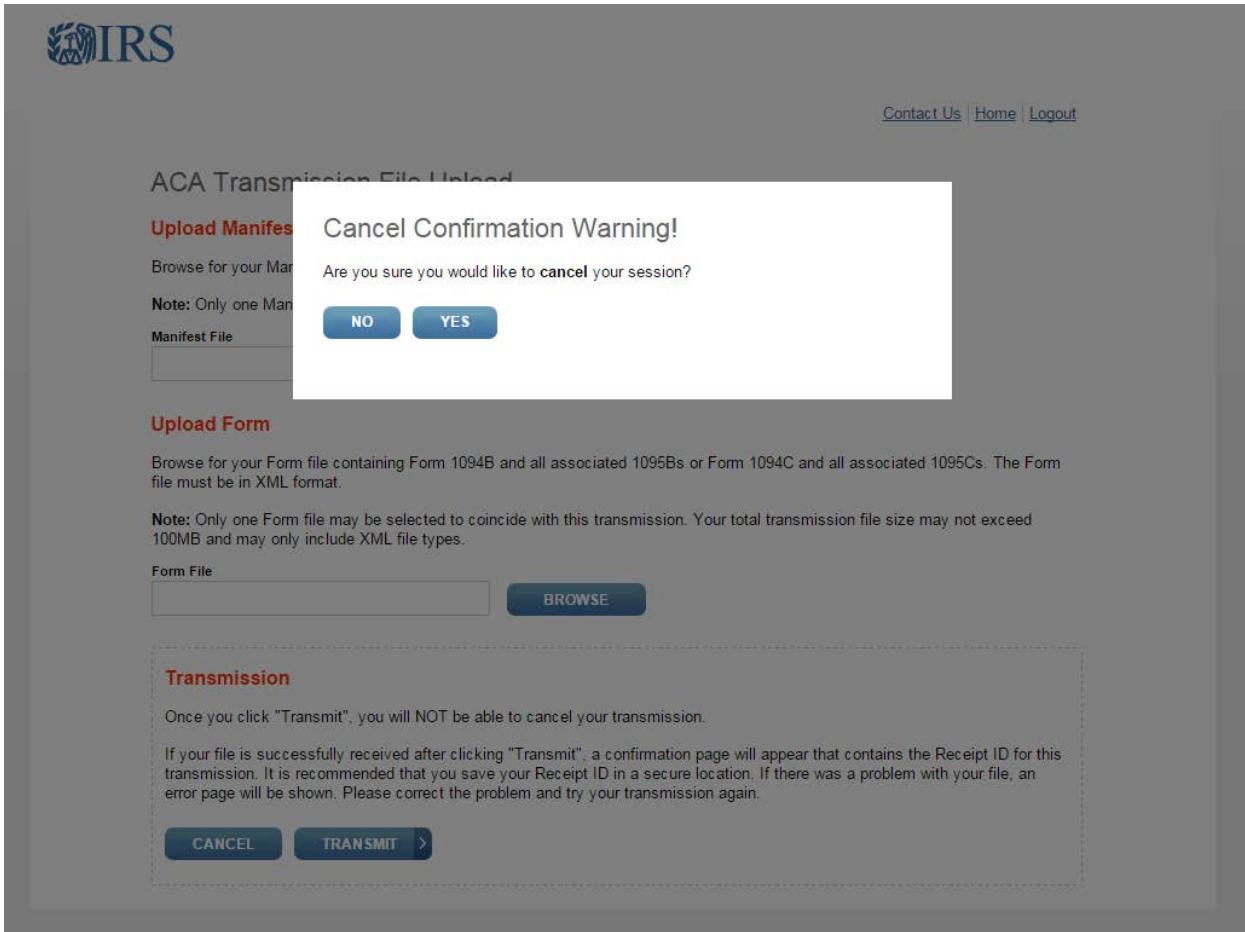
Figure 4-2: ISS-UI Channel Transmission Submission Screen, shows the capability of the ISS-UI Channel that allows a transmitter to upload the manifest file and the associated Form Data File containing either Forms 1094/1095-B or Forms 1094/1095-C submissions. The number of records that can be included in the Form Data File is only constrained by the 100 MB file size limit. The transmitter will have to provide information about the transmission, and the transmission itself, through ISS-UI channel. The transmitter provides a Unique Transmission Identifier (UTID) in the transmission manifest file which will be uploaded along with transmission file. IRS recommends that external users validate their XML files against the schemas provided

by IRS prior to submitting them to IRS. Taking this step will help avoid discovering errors after the XML file is submitted. Performing this validation on the user end makes it easier and faster to identify and locate schema errors. Any tool which allows the external user to validate their XML files against the schemas, such as "Altova XMLSpy" or "SoapUI" should be suitable.

Once the transmission manifest and transmission files are uploaded and validated by IRS, IRS generates a Receipt ID which will be displayed to the transmitter. The Receipt ID is used to retrieve the Acknowledgement after the transmission is processed. It is also used in combination with other identifiers to uniquely identify records in a transmission. **Note:** It is very important that the Receipt ID be recorded and associated with the correct transmission. It will be needed to retrieve acknowledgements and may be needed for any corrections or replacements.

The screenshot shows the 'ACA Transmission File Upload' page. At the top left is the IRS logo. At the top right are links for 'Contact Us', 'Home', and 'Logout'. The main title is 'ACA Transmission File Upload'. Below it is a section titled 'Upload Manifest' with a note: 'Browse for your Manifest file in XML format.' A file input field contains '\_Manifest\_SoapHeader\_P.xml' and a 'BROWSE' button. A note below says: 'Note: Only one Manifest file may be selected to coincide with this transmission.' The next section is 'Upload Form' with a note: 'Browse for your Form file containing Form 1094B and all associated 1095Bs or Form 1094C and all associated 1095Cs in XML format. Once you have selected your files select "Transmit" to process the transmission.' A file input field contains '1094B\_Request\_BB000\_20140101T01010200' and a 'BROWSE' button. A note below says: 'Note: Only one Form file may be selected to coincide with this transmission. Your total transmission file size may not exceed 100MB and may only include XML file types.' A section titled 'Transmission' contains a note: 'Once you click "Transmit", you will NOT be able to cancel your transmission.' Another note says: 'If your file is successfully received after clicking "Transmit", a confirmation page will appear that contains the Receipt ID for this transmission. It is recommended that you save your Receipt ID in a secure location. If there was a problem with your file, an error page will be shown. Please correct the problem and try your transmission again.' A note at the bottom of this section says: 'Note: Due to file size limitations, please allow sufficient time for larger Form files to be transmitted.' At the bottom are 'CANCEL' and 'TRANSMIT' buttons.

**Figure 4-2: ISS-UI Channel Transmission Submission Screen**



**Figure 4-3: ISS-UI Channel Transmission Submission Screen**

The above Transmission Cancellation Pop-up shows a cancellation warning of a UI Channel Transmission Submission Screen and the option to select the “Yes” and “No” button.

#### 4.2.1 Sample Manifest File

To create the Request Manifest XML file, Transmitters should use IRS-ACAUUserInterfaceHeaderMessage.xsd schema.

There is no requirement for naming the Manifest XML file. However, the suggested way is as follows:

**Manifest\_<Form Data File Name (without extension)>.xml**

**For example:**

**Manifest\_1094B\_Request XXXXX20140101T010102000Z.xml**

Note that the resulting Manifest file will include both the Manifest Header and the ACA Business Header and should be ready for upload.

The following is a sample of the Manifest XML file that would be uploaded via the ISS-UI channel:

```
<?xml version="1.0" encoding="UTF-8"?>
<p:ACAUIBusinessHeader xmlns:p="urn:us:gov:treasury:irs:msg:acauibusinessheader"
  xmlns:acaBusHeader="urn:us:gov:treasury:irs:msg:acabusinessheader"
  xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty18"
  xmlns:irs="urn:us:gov:treasury:irs:common"
  xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
  utility-1.0.xsd"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:us:gov:treasury:irs:msg:acauibusinessheader IRS-
  ACAUserInterfaceHeaderMessage.xsd ">
  <acaBusHeader:ACABusinessHeader>
    <UniqueTransmissionId>token</UniqueTransmissionId>
    <irs:Timestamp>2017-01-10T12:31:22Z </irs:Timestamp>
  </acaBusHeader:ACABusinessHeader>
  <ACATransmitterManifestReqDtl>
    <PaymentYr>2016</PaymentYr>
    <PriorYearDataInd>0</PriorYearDataInd>
    <irs:EIN>000000000</irs:EIN>
    <TransmissionTypeCd>0</TransmissionTypeCd>
    <TestFileCd />
    <OriginalReceiptId />
    <TransmitterForeignEntityInd>1</TransmitterForeignEntityInd>
    <TransmitterNameGrp>
      <BusinessNameLine1Txt>&lt;&gt;</BusinessNameLine1Txt>
      <BusinessNameLine2Txt>&lt;&gt;</BusinessNameLine2Txt>
    </TransmitterNameGrp>
    <CompanyInformationGrp>
      <CompanyNm />
      <MailingAddressGrp>
        <USAddressGrp>
          <AddressLine1Txt>0</AddressLine1Txt>
          <AddressLine2Txt>0</AddressLine2Txt>
          <irs:CityNm>A</irs:CityNm>
          <USStateCd>AL</USStateCd>
          <irs:USZIPCd>00000</irs:USZIPCd>
          <irs:USZIPExtensionCd>0000</irs:USZIPExtensionCd>
        </USAddressGrp>
      </MailingAddressGrp>
      <ContactNameGrp>
        <PersonFirstNm>-</PersonFirstNm>
        <PersonMiddleNm>-</PersonMiddleNm>
        <PersonLastNm>-</PersonLastNm>
        <SuffixNm>-</SuffixNm>
      </ContactNameGrp>
      <ContactPhoneNum>0000000000</ContactPhoneNum>
    </CompanyInformationGrp>
    <VendorInformationGrp>
      <VendorCd>I</VendorCd>
      <ContactNameGrp>
        <PersonFirstNm>-</PersonFirstNm>
```

**Figure 4-4: Sample Manifest File**

## 4.2.2 Sample Form Data File

To create the Form Data File: (1094/1095-[B,C]), Transmitters should use the following schema files:

- IRS-Form1094-1095BTransmitterUpstreamMessage.xsd
- IRS-Form1094-1095CTransmitterUpstreamMessage.xsd

The following is a sample of the Form Data File XML file that would be uploaded via the ISS-U1 channel:

```
<?xml version="1.0" encoding="UTF-8"?>
<n1:Form109495BTransmittalUpstream
  xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty18"
  xmlns:irs="urn:us:gov:treasury:irs:common"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns:n1="urn:us:gov:treasury:irs:msg:form1094-1095Btransmitterupstreammessage"
  xsi:schemaLocation="urn:us:gov:treasury:irs:msg:form1094-1095Btransmitterupstreammessage IRS-Form1094-1095BTransmitterUpstreamMessage.xsd">
<Form1094BUpstreamDetail recordType="String" lineNum="0">
<SubmissionId>1</SubmissionId>
<OriginalUniqueSubmissionId>1094B-19-00000001|1</OriginalUniqueSubmissionId>
<TestScenarioId>1-1</TestScenarioId>
    <TaxYr>2018</TaxYr>
    <BusinessName>
        <BusinessNameLine1Txt>Business Name Line</BusinessNameLine1Txt>
        <BusinessNameLine2Txt>Business Name Line 2</BusinessNameLine2Txt>
    </BusinessName>
    <BusinessNameControlTxt>BUSI</BusinessNameControlTxt>
    <irs:TINRequestTypeCd>BUSINESS TIN</irs:TINRequestTypeCd>
```

```

<irs:EmployerEIN>000000000</irs:EmployerEIN>
<ContactNameGrp>
    <PersonFirstName>First</PersonFirstName>
    <PersonMiddleName>Middle</PersonMiddleName>
    <PersonLastName>Last</PersonLastName>
    <SuffixName>Suffix</SuffixName>
</ContactNameGrp>
<ContactPhoneNum>0000000000</ContactPhoneNum>
<MailingAddressGrp>
    <USAddressGrp>
        <AddressLine1Txt>Address Line</AddressLine1Txt>
        <AddressLine2Txt>Address Line 2</AddressLine2Txt>
        <irs:CityNm>City</irs:CityNm>
        <USStateCd>AL</USStateCd>
        <irs:USZIPCd>22222</irs:USZIPCd>
        <irs:USZIPExtensionCd>2222</irs:USZIPExtensionCd>
    </USAddressGrp>
</MailingAddressGrp>
<Form1095BAttachedCnt>1</Form1095BAttachedCnt>
<Form1095BUpstreamDetail recordType="String" lineNum="0">
    <RecordId>1</RecordId>
    <TestScenarioId>2-1</TestScenarioId>
    <CorrectedInd>1</CorrectedInd>
    <CorrectedRecordInfoGrp>
<CorrectedUniqueRecordId>1094B-19-00000001|1|1</CorrectedUniqueRecordId>
    <CorrectedRecordPayeeName>
        <PersonFirstName>First</PersonFirstName>
        <PersonMiddleName>Middle</PersonMiddleName>
        <PersonLastName>Last</PersonLastName>
        <SuffixName>Suffix</SuffixName>
    </CorrectedRecordPayeeName>
    <CorrectedRecordPayeeTIN>000000000</CorrectedRecordPayeeTIN>
</CorrectedRecordInfoGrp>
<TaxYr>2018</TaxYr>
<ResponsibleIndividualGrp>
    <ResponsibleIndividualName>
        <PersonFirstName>First</PersonFirstName>
        <PersonMiddleName>Middle</PersonMiddleName>
        <PersonLastName>Last</PersonLastName>
        <SuffixName>Suffix</SuffixName>
    </ResponsibleIndividualName>
    <PersonNameControlTxt>LAST</PersonNameControlTxt>
<irs:TINRequestTypeCd>INDIVIDUAL_TIN</irs:TINRequestTypeCd>
    <irs:SSN>000000000</irs:SSN>
    <BirthDt>1957-08-13</BirthDt>
    <MailingAddressGrp>
        <USAddressGrp>
<AddressLine1Txt>Address Line</AddressLine1Txt>
<AddressLine2Txt>Address Line 2</AddressLine2Txt>
        <irs:CityNm>City</irs:CityNm>
        <USStateCd>AK</USStateCd>
        <irs:USZIPCd>22222</irs:USZIPCd>
        <irs:USZIPExtensionCd>2222</irs:USZIPExtensionCd>
    </USAddressGrp>
</MailingAddressGrp>
</MailingAddressGrp>

```

```

        <PolicyOriginCd>A</PolicyOriginCd>
    </ResponsibleIndividualGrp>
    <SponsoringEmployerInfoGrp>
        <BusinessName>
            <BusinessNameLine1Txt>Business Name Line</BusinessNameLine1Txt>
            <BusinessNameLine2Txt>Business Name Line 2</BusinessNameLine2Txt>
        </BusinessName>
            <BusinessNameControlTxt>BUSI</BusinessNameControlTxt>
            <irs:EIN>000000000</irs:EIN>
            <irs:TINRequestTypeCd>BUSINESS_TIN</irs:TINRequestTypeCd>
            <MailingAddressGrp>
                <USAddressGrp>
                    <AddressLine1Txt>Address Line</AddressLine1Txt>
                    <AddressLine2Txt>Address Line 2</AddressLine2Txt>
                        <irs:CityNm>City</irs:CityNm>
                        <USStateCd>AL</USStateCd>
                        <irs:USZIPCd>22222</irs:USZIPCd>
                    <irs:USZIPExtensionCd>2222</irs:USZIPExtensionCd>
                        </USAddressGrp>
                    </MailingAddressGrp>
                </SponsoringEmployerInfoGrp>
                <IssuerInfoGrp>
                    <BusinessName>
                        <BusinessNameLine1Txt>Business Name Line</BusinessNameLine1Txt>
                        <BusinessNameLine2Txt>Business Name Line 2</BusinessNameLine2Txt>
                    </BusinessName>
                        <BusinessNameControlTxt>BUSI</BusinessNameControlTxt>
                        <irs:TINRequestTypeCd>BUSINESS_TIN</irs:TINRequestTypeCd>
                        <irs:EIN>000000000</irs:EIN>
                        <ContactPhoneNum>0000000000</ContactPhoneNum>
                        <MailingAddressGrp>
                            <USAddressGrp>
                                <AddressLine1Txt>Address Line</AddressLine1Txt>
                                <AddressLine2Txt>Address Line 2</AddressLine2Txt>
                                    <irs:CityNm>City</irs:CityNm>
                                    <USStateCd>AL</USStateCd>
                                    <irs:USZIPCd>22222</irs:USZIPCd>
                                <irs:USZIPExtensionCd>2222</irs:USZIPExtensionCd>
                                    </USAddressGrp>
                                </MailingAddressGrp>
                            </IssuerInfoGrp>
                            <CoveredIndividualGrp>
                                <CoveredIndividualName>
                                    <PersonFirstName>First</PersonFirstName>
                                    <PersonMiddleName>Middle</PersonMiddleName>
                                    <PersonLastName>Last</PersonLastName>
                                    <SuffixNm>Suffix</SuffixNm>
                                </CoveredIndividualName>
                                <PersonNameControlTxt>LAST</PersonNameControlTxt>
                            <irs:TINRequestTypeCd>INDIVIDUAL_TIN</irs:TINRequestTypeCd>
                            <irs:SSN>000000000</irs:SSN>
                            <BirthDt>1957-08-13</BirthDt>
                            <CoveredIndividualAnnualInd>1</CoveredIndividualAnnualInd>
                            <CoveredIndividualMonthlyIndGrp>
                                <JanuaryInd>1</JanuaryInd>

```

```

<FebruaryInd>1</FebruaryInd>
<MarchInd>1</MarchInd>
<AprilInd>1</AprilInd>
<MayInd>1</MayInd>
<JuneInd>1</JuneInd>
<JulyInd>1</JulyInd>
<AugustInd>1</AugustInd>
<SeptemberInd>1</SeptemberInd>
<OctoberInd>1</OctoberInd>
<NovemberInd>1</NovemberInd>
<DecemberInd>1</DecemberInd>
</CoveredIndividualMonthlyIndGrp>
</CoveredIndividualGrp>
</Form1095BUpstreamDetail>
</Form1094BUpstreamDetail>
</n1:Form109495BTransmittalUpstream>

```

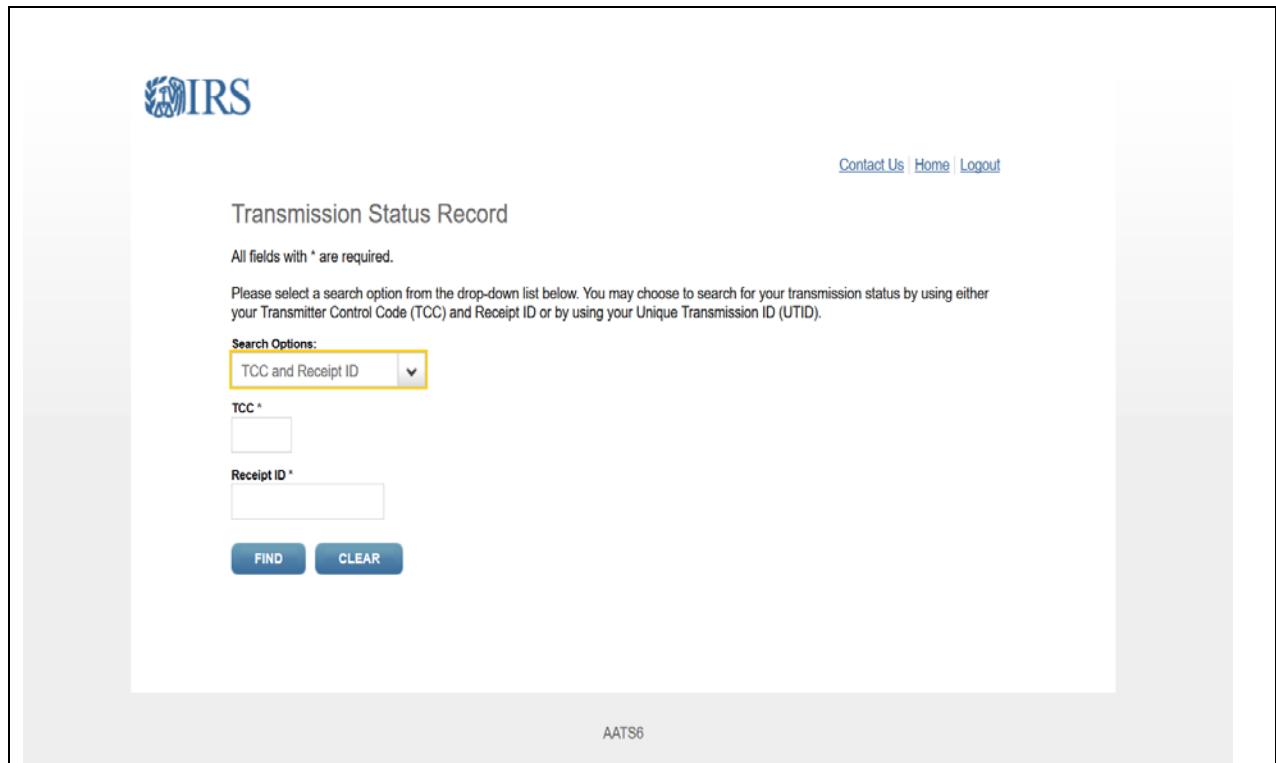
**Figure 4-5: Sample Form Data File**

### 4.3 Retrieving Acknowledgment from IRS

Transmitters must submit a request to retrieve the processing status and error detail of their transmission which is known as the Acknowledgement. In order to retrieve the Acknowledgement, the transmitter must provide their Transmitter Control Code (TCC) and the Receipt ID or UTID from the transmission for which they are requesting the processing status.

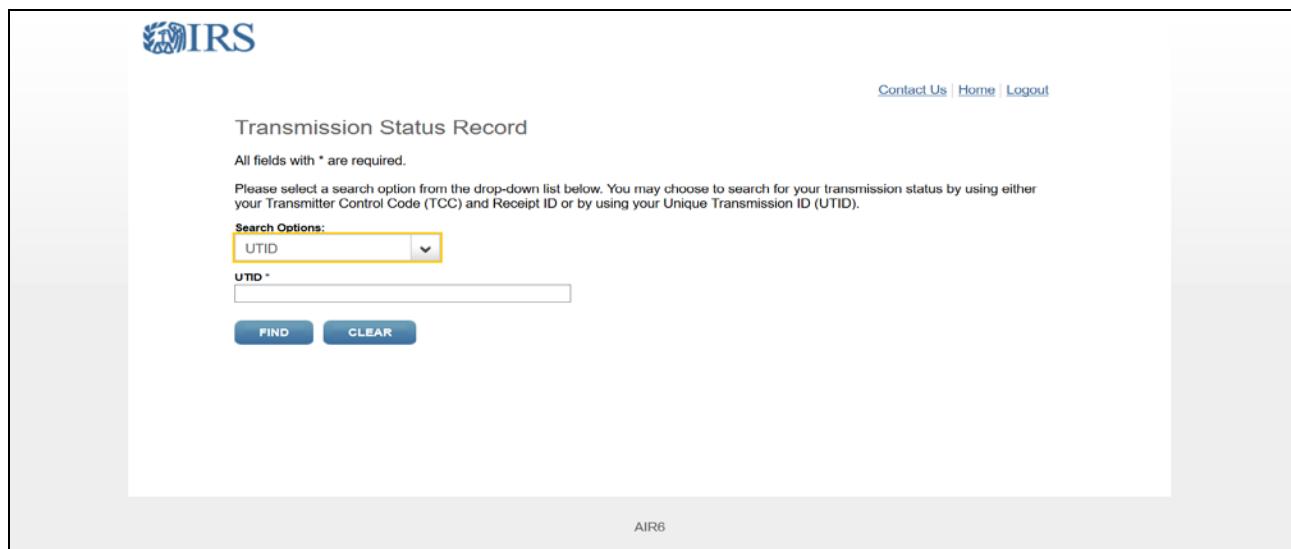
The below screen shots are ISS-UI Channel Transmission Status Retrieval Screens depicting the Transmission Retrieval features.

**Figure 4-6: Transmission Status Search Page**



The screenshot shows the IRS Transmission Status Record search page. The page features the IRS logo at the top left and navigation links (Contact Us, Home, Logout) at the top right. The main title is "Transmission Status Record". A note states "All fields with \* are required." Below this, a search options dropdown is set to "TCC and Receipt ID". There are two input fields: "TCC \*" and "Receipt ID \*". At the bottom are "FIND" and "CLEAR" buttons. The page is identified by the code "AATS6" at the bottom right.

Figure 4-6a: Transmission Status Search Page (TCC and Receipt ID)



The screenshot shows the IRS Transmission Status Record search page. The layout is identical to Figure 4-6a, with the IRS logo, navigation links, and "Transmission Status Record" title. The search options dropdown is now set to "UTID". The "UTID" input field is populated with "AIR6". The "FIND" and "CLEAR" buttons are at the bottom. The page is identified by the code "AIR6" at the bottom right.

Figure 4-6b: Transmission Status Search Page (UTID)

**Note: The UTID can also be used to check the status of a transmission. The Schema allows either the TCC and Receipt ID or the UTID to check status.**

```

<xsd:complexType name="ACABulkReqTrnsmtStsReqGrpDtlType">
  <xsd:annotation>
    <xsd:documentation>
      <Component>
        <DictionaryEntryNm>ACA Bulk Request Transmitter Status Request Detail Type</DictionaryEntryNm>
        <MajorVersionNum>2</MajorVersionNum>
        <MinorVersionNum>0</MinorVersionNum>
        <VersionEffectiveBeginDt>2015-04-14</VersionEffectiveBeginDt>
        <VersionDescriptionTxt>Initial version</VersionDescriptionTxt>
        <Description>A group that provides ACA Bulk Request Transmitter Status Detail request message related information</Description>
      </Component>
    </xsd:documentation>
  </xsd:annotation>
  <xsd:choice>
    <xsd:element ref="irs:ReceiptId"/>
    <xsd:element ref="UniqueTransmissionId"/>
  </xsd:choice>
</xsd:complexType>

```

**Figure 4-7: A2A Check Status using UTID Request**

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <ns5:ACABusinessHeader ns3:Id="?">
      xmlns:ns6="urn:us:gov:treasury:irs:msg:acasecurityheader"
      xmlns:ns5="urn:us:gov:treasury:irs:msg:irstransmitterstatusrequest"
      xmlns:ns4="http://www.w3.org/2000/09/xmldsig#"
      xmlns:ns3="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd"
      xmlns:ns2="urn:us:gov:treasury:irs:common" xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty17">
        <UniqueTransmissionId>99990000-e00b-00d0-a000-1000EB102538:SYS12:XXXXXX:P
      </UniqueTransmissionId>
    </ns2:Timestamp>2017-08-23T20:06:33Z</ns2:Timestamp>
  </ns5:ACABusinessHeader>
  </soap:Header>
  <soap:Body>
    <ns5:ACABulkRequestTransmitterStatusDetailResponse
      xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty17" xmlns:ns2="urn:us:gov:treasury:irs:common"
      xmlns:ns3="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd"
      xmlns:ns4="http://www.w3.org/2000/09/xmldsig#" xmlns:ns5="urn:us:gov:treasury:irs:msg:irstransmitterstatusrequest"
      xmlns:ns6="urn:us:gov:treasury:irs:msg:acasecurityheader">
      <ACABulkRequestTransmitterResponse>
        <TransmissionStatusCd>Partially Accepted</TransmissionStatusCd>
        <ns2:ReceiptId>1094B-18-00000000</ns2:ReceiptId>
      </ACABulkRequestTransmitterResponse>
      <ACABulkReqTrnsmtStsRespGrpDtl>
        <ns2:BulkExchangeFile>
          <xop:Include
            href="cid:c290df2a-8104-47f3-9d49-4da8a5c90591-8@urn%3Aus%3Agov%3Atreasury%3Airs%3Acommon"
            xmlns:xop="http://www.w3.org/2004/08/xop/include" />
        </ns2:BulkExchangeFile>
      </ACABulkReqTrnsmtStsRespGrpDtl>
    </ns5:ACABulkRequestTransmitterStatusDetailResponse>
  </soap:Body>
</soap:Envelope>

```

**Figure 4-8: A2A Check Status using UTID Response to Transmitter**

## 4.4 Transmitter IRS Form Data File Specification

Please refer to Section 3 – Composing IRS ACA Information Returns Transmission for details on composing an IRS ACA Form Data File that will be submitted by a transmitter to IRS.

## 4.5 Transmitting Information Returns to IRS

In order to transmit a Form Data File through the ISS-UI channel, a transmitter must have an active IRS e-Services account, an ACA Transmitter Control Code (TCC), and must be using IRS approved Software to submit returns or retrieve acknowledgements. The transmitter will be required to interactively log in to IRS web site with their web browser and invoke the appropriate URL for AIR. The application will allow transmitters to submit information returns to IRS using the following browsers:

1. Internet Explorer 9, 10 and 11 (\* Version 9 and above are supported.)
2. Microsoft Edge
3. Firefox
4. Safari 9
5. Chrome

The transmitter must have two XML files to submit a single transmission via the ISS-UI Channel.

The Manifest file will contain information in uncompressed native XML format related to the transmitter and the transmission. The Manifest file will include the Manifest Header XML as defined by the XML Schema located at [Affordable-Care-Act-Information-Returns-Schemas](#) in IRS-Form1094-1095BCTransmitterReqMessage.xsd file located in the MSG folder of the schema. Many of the elements in the Transmission Data File will not change from transmission to transmission and thus can be reused. Elements such as the transmitter information (TransmitterNameGrp, TransmitterForeignEntityInd, MailingAddressGrp, SoftwareID, etc.) should not change frequently, if at all. Other elements in the Manifest file are likely to change for every transmission. Elements such as the transmission information (total payer and payee counts, checksum, file byte size, document file name, etc.) will be different for every transmission. Section 8.1.1, *IRS-ACASubmitService SOAP Request Message – Manifest Header*, includes the elements that are required in the Transmission Data File.

The Form Data File will contain Forms 1094/1095-B or Forms 1094/1095-C data in uncompressed native XML format relative to the Form 1094/1095 data. Once the required files are uploaded to IRS, the transmitter will receive a Receipt ID, and other information about the transmission, as part of the interactive session.

The Receipt ID does not provide proof that the transmission were either Accepted or Rejected. The Receipt ID simply provides proof that IRS received the transmission. The transmitter must retrieve their Acknowledgement using the Receipt ID or the UTID to obtain proof of acceptance or rejection.

The web interface will only accept uncompressed native XML files. Security checking (XML Threat detection, virus scanning, etc.) is performed on each file before routing to IRS back-end systems.

Transmitters that take advantage of the ISS-UI Channel to submit their transmissions will have to log into IRS from a web browser on their local systems. The URL for AIR that facilitates interaction with the transmitter community will be provided on the [Affordable-Care-Act-Information-Return-AIR-Program](#) page and other related guidance and Job Aids produced by IRS will also be available to the transmitters on the AIR Program page. The ISS-UI Channel will

guide the transmitters through all the steps necessary to upload the required files from their local systems.

The Form Data File that a transmitter uploads through the ISS-UI Channel must contain valid XML. Open tags must be followed by closed tags. For example, the open tag <TaxYear> must be followed by the data and the closed tag </TaxYear> (i.e., <TaxYear>2018</TaxYear>). Empty tags should not be included in Form data. The Form Data File must conform to the XML Schema definitions included in the applicable xsd files. Table 4-1 maps the ACA forms to the XML Schema file names.

**Table 4-1: Forms to XML Schema File Mapping**

Applicable Forms	XML Schema Root Element File
Form 1094-B/1095-B	IRS-Form1094-1095BTransmitterUpstreamMessage.xsd
Form 1094-C/1095-C	IRS-Form1094-1095CTransmitterUpstreamMessage.xsd

All of the required information for a transmission will be included in the file that is uploaded including the transmission information, the form type, the Form 1094 form elements and the Form 1095 form elements.

#### **4.5.1 Validation of IRS Form Data File**

IRS performs security checks on the Form Data File received from the transmitter. If no security threats are detected, IRS generates the Receipt ID and returns it along with Timestamp to the transmitter. Each Receipt ID uniquely identifies a Form Data File submitted to IRS. The Receipt ID or the UTID is used to retrieve the status of the transmission. As such, the Receipt ID returned to the transmitter should be kept with the Form Data File submitted and protected from loss or deletion.

When IRS receives the uploaded Form Data File, the following checks are performed:

- 1. The file must be free of viruses**
- 2. The file size must not exceed 100 MB**
- 3. The file must be readable by AIR**
- 4. The IRS application must be able to write the file to disk**
- 5. The file must pass XML validations**
- 6. The file must not contain comingled Forms 1094/1095-B and Forms 1094/1095-C**
- 7. UUID is verified to be unique for the TCC**
- 8. Metadata entered by the transmitter is checked for any discrepancies**
- 9. Duplicate transmission check is performed using the DocumentSystemFileName, Checksum and TCC**
- 10. The reported checksum must match with IRS calculated checksum**

## 4.5.2 Processing of IRS Form Data File

Once the file is processed, the status is made available for the transmitter to retrieve through Retrieve Acknowledgement web service described below. When errors are identified during file processing such as read/write errors, invalid XML, etc. the transmission is rejected and appropriate error(s) and description(s) are returned to the transmitter through the user interface.

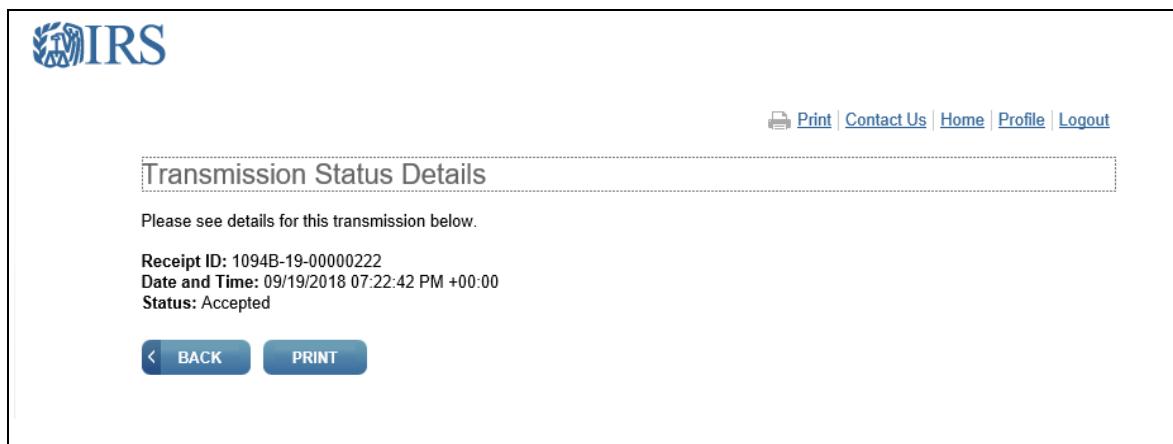
When business rule errors are identified during processing the XML Form Data File, IRS will record these error codes and their descriptions and return them in an XML Error Data File attached to the Acknowledgement message which transmitter will retrieve. The transmitter will have an opportunity to correct the errors and resubmit the Form Data File.

## 4.6 Retrieving Status of the Transmission through UI

After the transmitter successfully uploads a Form Data File and receives a Receipt ID, they will use the Receipt ID or the UTID to request the *Acknowledgement* for that transmission.

Transmitters should wait at least 10 minutes after the “Receipt ID” is provided to request the Acknowledgement for a transmission. The transmitter is required to log in to IRS web site and invoke the appropriate URL provided by IRS. The transmitter shall select the option to retrieve one or more Acknowledgements from user interface. The Receipt ID or the UTID is the key information required for a transmitter to retrieve the Acknowledgement for a specific transmission. As such, when the transmitter receives the Receipt ID, it should be kept with the transmission and protected from loss or deletion.

Figure 4-8: ISS-UI Channel Transmission Status Results Screen, is showing a sample transmission status retrieved using the ISS-UI Channel Transmission Status Retrieval feature.



The screenshot shows a web page titled "Transmission Status Details". At the top, there is a logo for "IRS" and a navigation bar with links for "Print", "Contact Us", "Home", "Profile", and "Logout". The main content area displays the following information:

Please see details for this transmission below.

Receipt ID: 1094B-19-00000222  
Date and Time: 09/19/2018 07:22:42 PM +00:00  
Status: Accepted

At the bottom of the page are two buttons: "BACK" and "PRINT".

Figure 4-9: ISS-UI Channel Transmission Status Results Screen

The status of the transmission includes one of the outcomes identified in Table 4-2.

Table 4-2: Transmission Processing Status Included in Acknowledgement

Transmission Status	Description
---------------------	-------------

Transmission Status	Description
Processing	IRS has not completed processing the transmission.
Accepted	IRS has completed processing the transmission and found no errors.
Accepted with Errors	IRS has completed processing the transmission and the errors are documented in the Error Data File attached to the Acknowledgement.
Partially Accepted	IRS has completed processing the transmission and has rejected at least one (but not all) of the submissions. Error data file will be attached to the Acknowledgement File.
Rejected	IRS has rejected the transmission – depending on why the transmission was rejected, an Error Data File may or may not be attached to the Acknowledgement.
Not Found	IRS could not find a transmission corresponding to the Receipt ID provided. If the Receipt ID doesn't match with IRS generated Receipt ID, the Receipt ID doesn't belong to the Transmitter TCC.

The transmission Acknowledgement includes the status of the transmission, and if applicable, details of error such as any business rules validation errors, and TIN validation errors that were found when IRS processed the Form Data File.

The details of errors found when IRS processed the Form Data File are included in an Error Data File that can be viewed and downloaded through the ISS-UI user-interface. The Acknowledgement includes the errors found, in XML format, during Form Data File processing. If no errors are found during processing, no Error Data File will be included with the Acknowledgement and the transmission processing status will be “Accepted”.

The transmission Acknowledgement may include:

- **Unique Transmission ID (UTID)**
- **Transmitter Control Code (TCC)**
- **Shipment Number assigned to the transmission**
- **Receipt ID**
- **Form Type Code**
- **Timestamp**
- **Transmission Status Code: Processing, Partially Accepted, Accepted, Accepted with Errors, Rejected, Not Found**
- **Error Message Detail Errors (if applicable - included in the Error Data File)**

## 4.7 IRS Error Data File

IRS accumulates any errors encountered during Form Data File processing in the Error Data File. As with the Form Data File 100 MB size constraint, Error Data Files are also constrained by a 200 MB size limitation. Only one Error Data File will ever be created per transmission. It is possible that the Error Data File could contain a sufficiently large number of errors that the 200 MB file size limitation is exceeded. In this case, while AIR will process the entire Form Data File and record all of the errors found, the Error Data File will be truncated and a message will be placed at the end of the file indicating that it was truncated. Error Data Files that exceed the 200 MB size constraint are typical of a systemic problem within the Form Data File that when addressed will substantially reduce the number of errors found. If the Transmitter has questions about errors that were truncated, they can contact the AIR Help Desk at 866-937-4130 for assistance. The Error Data File is returned in ACA Assurance Testing System (AATS) and Production Environment.

The Error Data File includes the following data:

- The identifier that uniquely identifies the record with an error (Unique Submission Identifier or Unique Record Identifier)
- The error message code indicating what the error is
- The error message text explaining what the error is
- The element that was in error

Figure 4-9 provides an example of the information that will be displayed on-screen in the ISS-UI. Note the “Download” button that enables the transmitter to download the Error Data XML File.



[Print](#) | [Contact Us](#) | [Home](#) | [Logout](#)

## Transmission Status Details

Please see details for this transmission below. Click Download to be prompted to save an XML response message to your computer.

Receipt ID: 1095B-17-00000108  
Date and Time: 04/28/2017 05:29:31 PM UTC  
Status: Rejected

[BACK](#)  [PRINT](#)  [DOWNLOAD](#)

**Figure 4-10: Example of Acknowledgement via ISS-UI Channel**

Figure 4-10 provides an example of the information that will be included in the Error Data File (which contains the error codes, the error descriptions, and the XPath reference to the element found to be in error), that can be downloaded via the ISS-UI channel.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ns3:FormBCTransmitterSubmissionDtl
    xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty18"
    xmlns:ns2="urn:us:gov:treasury:irs:common"
    xmlns:ns3="urn:us:gov:treasury:irs:msg:form1094-1095BCtransmittermessage">
<ACATransmitterSubmissionDetail>
    <TransmitterErrorDetailGrp>
        <SubmissionLevelStatusCd>Accepted with Errors
            </SubmissionLevelStatusCd>
        <UniqueSubmissionId>1094C-19-00000004|1</UniqueSubmissionId>
            </TransmitterErrorDetailGrp>
        <TransmitterErrorDetailGrp>
            <UniqueRecordId>1094C-19-00000004|1|2</UniqueRecordId>
                <ns2:ErrorMessageDetail>
                    <ns2:ErrorMessageCd>1094C-041-02</ns2:ErrorMessageCd>
                    <ns2:ErrorMessageTxt>If Form 1095C 'BirthDt' in
                    'CoveredIndividualGrp' has a value, then it must not occur in the
                    future (greater than current processing date)</ns2:ErrorMessageTxt>
                <ns2:XpathContent>/Form109495CTransmittalUpstream/Form1094CUpstreamDetail/Fo
                    rm1095CUpstreamDetail/CoveredIndividualGrp[1]/BirthDt
```

```

</ns2:XpathContent>
    </ns2:ErrorMessageDetail>
    </TransmitterErrorDetailGrp>
    <TransmitterErrorDetailGrp>
<ns2:ErrorMessageDetail>
<ns2:ErrorMessageCd>MANIFEST-013</ns2:ErrorMessageCd>
<ns2:ErrorMessageTxt>The value in Manifest 'TotalPayeeCount' must
equal the number of 1095s within the submission </ns2:ErrorMessageTxt>
</ns2:ErrorMessageDetail>
</TransmitterErrorDetailGrp>
<TransmitterErrorDetailGrp>
<UniqueRecordId>1094C-19-00000004|1|1</UniqueRecordId>
<ns2:ErrorMessageDetail>
<ns2:ErrorMessageCd>1094C-042-02</ns2:ErrorMessageCd>
<ns2:ErrorMessageTxt>If Form 1095C 'BirthDt' in
'CoveredIndividualGrp' has a value, then it must not be earlier
than Tax Year minus 120 years</ns2:ErrorMessageTxt>
<ns2:XpathContent>/Form109495CTransmittalUpstream/Form1094CUpstreamDetail/Fo
rm1095CUpstreamDetail/CoveredIndividualGrp[1]/BirthDt
    </ns2:XpathContent>
    </ns2:ErrorMessageDetail>
    </TransmitterErrorDetailGrp>
</ACATransmitterSubmissionDetail>
</ns3:FormBCTransmitterSubmissionDtl>

```

**Figure 4-11: Error Data XML File**

- Note: XML structure of Error Data File and library import will always follow the TY2018 schema package.

## 4.8 UI Channel TY2015, TY2016, TY2017 and TY2018 Schemas

### Transmitters sending returns through UI Channel (AATS and Production):

- AIR will accept the Current Tax Year and three Prior Tax Years Returns
- Transmitters should use latest TY2018 schema version to generate Forms 1094/1095-B or Forms 1094/1095-C Form Data (payload) for TY2018 returns
- Transmitters should use latest TY2017 schema version to generate Forms 1094/1095-B or Forms 1094/1095-C Form Data (payload) for TY2017 returns
- Transmitters should use TY2016 schema to generate Forms 1094/1095-B or Forms 1094/1095-C Form Data (payload) for TY2016 returns
- Transmitters should use TY2015 schema to generate Forms 1094/1095-B or Forms 1094/1095-C Form Data (payload) for TY2015 returns
- Forms 1094/1095-B and Forms 1094/1095-C: Manifest element:
- <PaymentYr>2015</PaymentYr>  Transmission will be checked and validated against TY2015 schema and business rules
- <PaymentYr>2016</PaymentYr>  Transmission will be checked and validated against TY2016 schema and business rules
- <PaymentYr>2017</PaymentYr>  Transmission will be checked and validated against TY2017 schema and business rules

<PaymentYr>**2018**</PaymentYr>  Transmission will be checked and validated against TY2018 schema and business rules

- Transmitter should use Manifest schema from TY2018 schema package to generate TY2015, TY2016, TY2017 and TY2018 Manifest file.

### **Calculate AttachmentByteSizeNum for TY2015, TY2016, TY2017 and TY2018:**

Right click on Form Data File, click on “Properties” copy the size in bytes (not “Size of Disk”) and paste on Manifest element:

```
<irs:AttachmentByteSizeNum>000</irs:AttachmentByteSizeNum>
```

## **5 Transmitting IRS ACA Form Data File and Retrieving Acknowledgment via the ISS-A2A Channel**

---

The ISS-A2A Channel allows transmitters to submit a Form Data File to IRS and retrieve the Acknowledgement for that transmission via a Services Oriented Architecture (SOA) interface. The Form Data File is transmitted in the SOAP Message as an MTOM attachment. The response to a request for Acknowledgement may or may not include an Error Data File. If an Error Data File is produced by AIR, it will be returned to the transmitter in the SOAP Response as an MTOM attachment. MTOM is the only method allowed by IRS for transmitters to attach files to a SOAP Message for ACA Information Returns. The purpose of this section is to describe the requirements for submitting an ACA Information Returns Form Data File to IRS using the ISS-A2A Channel.

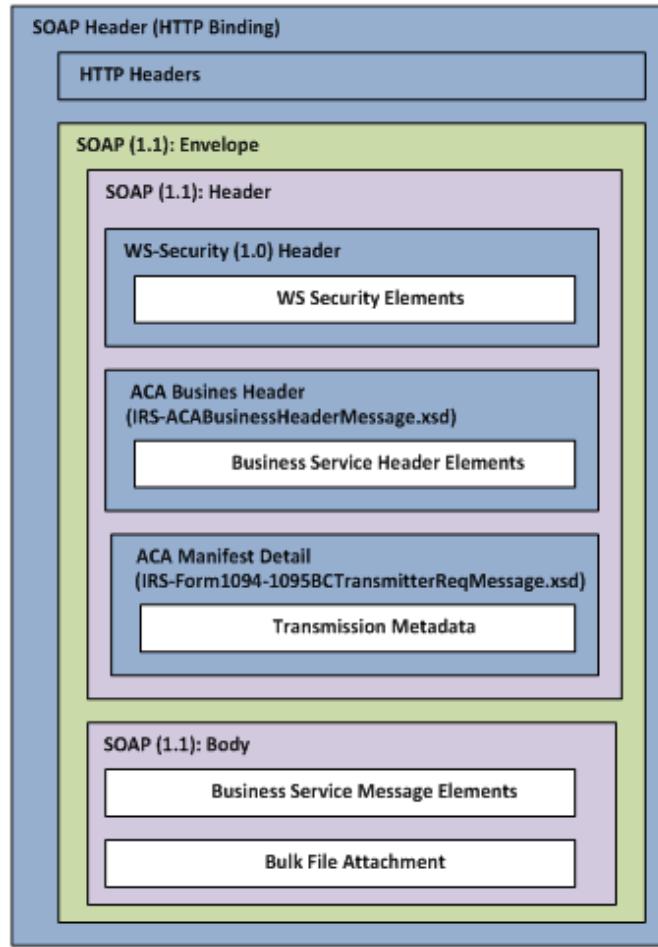
### **5.1 Message Compression**

HTTP compression is used to maximize transfer efficiency and is a standard capability within the HTTP protocol. GZIP is a specific compression method defined under HTTP that is required of messages to IRS for ACA. A comprehensive explanation of the GZIP specification is provided by the Internet Engineering Task Force: <https://tools.ietf.org/html/rfc1952>. Depending on what tool the Transmitter is using to submit the message, packaged software like SoapUI allows users to simply enable HTTP transmission compression via a setting while custom solutions would require the appropriate code. GZIP compression is required for sending transmissions via ISS-A2A Channel.

### **5.2 Basic SOAP Message Structure**

A SOAP message is a XML structure consisting of *SOAP Envelope*, *SOAP Header* and *SOAP Body* which may contain payload data or an MTOM-encoded attachment. A SOAP message starts with an XML declaration <?xml version="1.0" encoding="UTF-8"?>. The following section explains various sections and aspects of a SOAP message and IRS A2A web service available to the transmitters. Please be advised that this document is not intended as a tutorial and therefore covers only important aspects of a SOAP message. Please refer to [www.w3.org/TR/soap/](http://www.w3.org/TR/soap/) and other authoritative websites for more information. This section describes the logical structure of basic messages with a SOAP Header and SOAP Body blocks within a SOAP Message Envelope. A SOAP message contains one SOAP Header and one SOAP Body within one SOAP Envelope. The SOAP Header contains the Web Services (WS) Addressing (WS-Addressing), WS-Security, and ACA-related business header information. The SOAP Body contains the other ACA Business Information and ACA Information Returns as MTOM-encoded attachment.

An example of the SOAP Message Structure is shown below in Figure 5-1.



**Figure 5-1: Basic SOAP Message Structure**

### 5.2.1 Creating the SOAP Envelope

The SOAP Envelope consists of a SOAP header and a SOAP body. The SOAP header contains information about the transmitter and the transmission and metadata about the payload in the SOAP body. The SOAP body is also referred to as the content file, Form Data File or simply payload. To create the SOAP envelope, the transmitter needs to know the following information:

- UTID (Business Correlation ID)
- TCC
- Form Data File
- The content type for the SOAP Envelop with MTOM encoded attachment must be “application/xop+xml” and the content-transfer-encoding must be 8-bit.  
AttachmentByteSizeNum in Manifest should be same as size of the file.
- Right click on Form data file → click on “Properties” → copy the size in bytes (not “Size of disk”)

## 5.2.2 SQL Injection in the SOAP Message

The special characters listed below are treated as SQL (Structured Query Language) injections. SQL injections exploit security vulnerabilities in an application's software. SQL injections are mostly known as an attack vector for websites or A2A communication between two sources. SQL Injections may allow attackers to spoof identity, tamper with existing data, cause repudiation issues such as voiding transactions or changing balances, allow the complete disclosure of all data on the system, or destroy the data. Characters that are not allowed due to concerns about SQL Injections are shown in this table. If needed, the escape characters shown in Table 5-1 can be used and are allowed, depending on the efile type.

Table 5-1: Characters not allowed due to SQL Injection Concerns

Character	Character Description	Character Allowed?	Escape Characters	Escape Character Allowed
&	Ampersand	Rejected (malformed check)	&amp;	Allowed
'	Apostrophe	Rejected (sql injection check)	&apos;	Allowed
"	Quotation Mark	Allowed	&quot;	Allowed
--	Double Dash	Rejected (sql injection check)	Not Available	N/A
#	Hash Key	Rejected (sql injection check)	Not Available	N/A
<	Less Than	Rejected (malformed check)	&lt;	Allowed
>	Greater Than	Allowed	&gt;	Allowed

**Note:** Allowed escaped characters may be identified as a potential threat (Error Code TPE 1204) when they are used in conjunction with certain words such as “and” and “or”, as in “&apos;OR”. If this occurs troubleshoot by removing the apostrophe.

## 5.3 SOAP Header

IRS defines what should be in the SOAP header.

Basic steps to consume web service and create client:

- Get the certificate used for A2A message
- Generate and Compile the implementation class
- Deploy the WAR file. The tie classes (which are used to communicate with clients) are generated by the Application Server during deployment
- Code the client class
- Use wsimport to generate and compile the stub files
- Compile the client class
- Run the client
- WS-Security – Provides mechanisms for user identification and assertions in SOAP messages
- ACA AIR Transmission Header Business Elements – Provides elements required for all SOAP messages on the A2A channel
- ACA AIR Transmission Manifest – Provides manifest elements

### 5.3.1 WS-Security

ACA A2A Web Services exposed via IRS Portal comply with Web Services Security (WS-Security) specification version 1.0 for implementing end to end message security. It is an open standard published by OASIS that defines mechanisms for signing and encrypting SOAP messages and provides transport-neutral mechanisms to enforce integrity and confidentiality on messages and allows the communication of various security token formats.

WS-Security defines SOAP extensions to implement client authentication, message integrity and message confidentiality on the message level. Authentication helps identify the Sender (the transmitter). Message integrity ensures the recipient receives unaltered request. XML Signature specification ensures integrity of the message, which defines a methodology for cryptographically signing XML. Message confidentiality is to make the user sure that the data can't be read during transit. The XML Encryption specification is the basis to encrypt the parts of SOAP message including headers, body blocks, and substructures, which may be encrypted.

To consume ACA A2A web services, transmitter must use the X.509 authentication framework with the WS-Security specification. An X.509 certificate specifies a binding between a public key and a set of attributes that includes (at least) a subject name, issuer name, serial number, and validity interval. An X.509 certificate may be used to validate a public key that may be used to verify a SOAP message element or to identify the public key with SOAP message that has been digitally signed.

### 5.3.1.1 Creating the XML Signature

The signatures are defined using a <Signature> element and accompanying sub-elements as part of a security header. Note that the signature must be created after the content of the message is finalized. If changes are made to the message after the signature is created, it may result in a digest mismatch. Below is a quick overview of how to create an XML signature. Note that XML Digital Signature APIs and XML Digital Signature libraries are also publicly available that may simplify development. An overview and tutorial can be found using the following url:

<http://docs.oracle.com/javase/7/docs/technotes/guides/security/xmlsig/XMLDigitalSignature.html>

#### 1. Determine which resources are to be signed.

#### 2. Calculate the digest of each resource:

Each referenced resource is specified through a <Reference> element and its digest (calculated on the identified resource and not the <Reference> element itself) is placed in a <DigestValue> child element mentioned in XML snippet below.

```
<ds:Reference URI="#TS-E68EBBF1696C5DD4AA143353323390073">
  <ds:Transforms>
    <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
      <InclusiveNamespaces PrefixList="wsse wsa soapenv urn urn1 urn2 urn3"
        xmlns="http://www.w3.org/2001/10/xml-exc-c14n#" />
    </ds:Transform>
  </ds:Transforms>
  <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256" />
  <ds:DigestValue>?TimestampDigestValue?</ds:DigestValue>
</ds:Reference>
```

The <DigestMethod> element identifies the algorithm used to calculate the digest.

#### 3. Collect the Reference elements:

Collect the <Reference> elements (with their associated digests) within a <SignedInfo> element as shown below. Note that InclusiveNamespaces cannot be a child element of the CanonicalizationMethod element.

```
<ds:SignedInfo>
  <ds:CanonicalizationMethod Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#WithComments" />
```

```

<ds:SignatureMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256" />
<ds:Reference URI="#TS-E68EBBF1696C5DD4AA143353323390073">
    <ds:Transforms>
        <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#WithComments">
            <InclusiveNamespaces PrefixList="wsse wsa soapenv urn urn1 urn2 urn3"
                xmlns="http://www.w3.org/2001/10/xml-exc-c14n#WithComments" />
        </ds:Transform>
    </ds:Transforms>
    <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256" />
    <ds:DigestValue>?TimestampDigestValue?</ds:DigestValue>
</ds:Reference>
<ds:Reference URI="#id-E68EBBF1696C5DD4AA143353323390577">
    <ds:Transforms>
        <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
            <InclusiveNamespaces PrefixList="wsa soapenv urn1 urn2 urn3"
                xmlns="http://www.w3.org/2001/10/xml-exc-c14n#" />
        </ds:Transform>
    </ds:Transforms>
    <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256" />
    <ds:DigestValue>?ACATransmitterManifestReqDtlDigestValue?</ds:DigestValue>
</ds:DigestValue>
</ds:Reference>
<ds:Reference URI="#id-E68EBBF1696C5DD4AA143353323390578">
    <ds:Transforms>
        <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
            <InclusiveNamespaces PrefixList="wsa soapenv urn urn1 urn3"
                xmlns="http://www.w3.org/2001/10/xml-exc-c14n#" />
        </ds:Transform>
    </ds:Transforms>
    <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256" />
    <ds:DigestValue>?ACABusinessHeaderDigestValue?</ds:DigestValue>
</ds:Reference>
</ds:SignedInfo>

```

The `<CanonicalizationMethod>` element indicates the algorithm was used to canonize the `<SignedInfo>` element. Different data streams with the same XML information set may have different textual representations, e.g. differing as to whitespace. The `<SignatureMethod>` element identifies the algorithm used to produce the signature value.

#### 4. Signing:

Calculate the digest of the `<SignedInfo>` element, sign that digest and put the signature value in a `<SignatureValue>` element.

```
<ds:SignatureValue>SignatureValue</ds:SignatureValue>
```

#### 5. Add key information:

If keying information is to be included, place it in a `<KeyInfo>` element. Here the keying information contains the X.509 certificate for the transmitter, which would include the public key needed for signature verification.

```
<ds:KeyInfo Id="KI-E68EBBF1696C5DD4AA143353323390475">
  <wsse:SecurityTokenReference wsu:Id="STR-E68EBBF1696C5DD4AA143353323390476">
    <wsse:KeyIdentifier EncodingType="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-soap-
      message-security-1.0#Base64Binary" ValueType="http://docs.oasis-open.org/wss/2004/01/oasis-
      200401-wss-x509-token-profile-1.0#X509v3">?CertificateValue?</wsse:KeyIdentifier>
  </wsse:SecurityTokenReference>
</ds:KeyInfo>
```

#### 6. Enclose in a Signature element

Place the `<SignedInfo>`, `<SignatureValue>`, and `<KeyInfo>` elements into a `<Signature>` element. The `<Signature>` element comprises the XML signature.

```
<ds:Signature Id="SIG-E68EBBF1696C5DD4AA143353323390579"
  xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
  <ds:SignedInfo>
    <ds:CanonicalizationMethod .../>
    <ds:SignatureMethod .../>
    <ds:Reference .../>
    <ds:Reference .../>
    <ds:Reference .../>
  </ds:SignedInfo>
  <ds:SignatureValue>?SignatureValue?</ds:SignatureValue>
```

```
<ds:KeyInfo Id="KI-E68EBBF1696C5DD4AA143353323390475" .../>  
</ds:Signature>
```

### 5.3.1.2 ACA SOAP Header Elements to be Digitally Signed

The Header Elements in the Request SOAP Message to be digitally signed :

- Message Type - ACAGetTransmitterBulkRequestService
  - ACABusinessHeader
  - ACATransmitterManifestReqDtl
  - Timestamp
- Message Type - ACAGetTransmitterBulkRequestStatus
  - ACABusinessHeader
  - ACABulkRequestTransmitterStatusDetailRequest
  - Timestamp

### 5.3.1.3 Message Timeout

WS-Security provides the <Timestamp> header can be used to record creation and expiration time of a request message. Note that the WS Timestamp must be used within 10 minutes of creation time based on GMT.

```
<wsu:Timestamp wsu:Id="TS-E68EBBF1696C5DD4AA143353323390073">  
  <wsu:Created>2015-06-05T19:40:33.900Z</wsu:Created>  
  <wsu:Expires>2015-06-05T19:50:33.900Z</wsu:Expires>  
</wsu:Timestamp>
```

### 5.3.1.4 SOAP Header Examples showing Security Header and related elements

A sample of ACAGetTransmitterBulkRequestService:

```
<soapenv:Envelope
  xmlns:oas1="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:urn="urn:us:gov:treasury:irs:ext:aca:air:ty17"
  xmlns:urn1="urn:us:gov:treasury:irs:common" xmlns:urn2="urn:us:gov:treasury:irs:msg:acabusinessheader"
  xmlns:urn3="urn:us:gov:treasury:irs:msg:acasecurityheader"
  xmlns:urn4="urn:us:gov:treasury:irs:msg:irsacabulkrequesttransmitter">
  <soapenv:Header xmlns:wsa="http://www.w3.org/2005/08/addressing">
    <wsse:Security
      xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
      xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
        <ds:Signature Id="SIG-B38D3ED1AED822149F1501078080746278"
          xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
          <ds:SignedInfo>
            <ds:CanonicalizationMethod Algorithm="http://www.w3.org/2001/REC-xml-c14n-20010315#WithComments" />
            <ds:SignatureMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256" />
            <ds:Reference URI="#TS-B38D3ED1AED822149F1501078080732272">
              <ds:Transforms>
                <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#WithComments">
                  <InclusiveNamespaces PrefixList="wsse wsa oas1 soapenv urn urn1 urn2 urn3 urn4"
                    xmlns="http://www.w3.org/2001/10/xml-exc-c14n#WithComments" />
                </ds:Transform>
              </ds:Transforms>
            <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#sha384" />
            <ds:DigestValue>8mU9VPpB2qTz42D9p8W9YuJFuPT5H1u+2ABCNM1B3aUQ7RJ2CqHwwajGw9Epr0N7</ds:DigestValue>
          </ds:Reference>
          <ds:Reference URI="#id-B38D3ED1AED822149F1501078080741276">
            <ds:Transforms>
              <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#" />
              <InclusiveNamespaces PrefixList="wsa oas1 soapenv urn1 urn2 urn3 urn4"
                xmlns="http://www.w3.org/2001/10/xml-exc-c14n#" />
            </ds:Transform>
          </ds:Transforms>
        </ds:Signature>
      </wsse:Security>
    </soapenv:Header>
  </soapenv:Envelope>
```

```

<ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#sha384" />
<ds:DigestValue>jWJcURFLgWt3Eres50CXoNoZ+Rd1KdUX+CncDs2UuzhLDklyZBkfPf7nqLJiHS74</ds:DigestValue>
</ds:Reference>
<ds:Reference URI="#id-B38D3ED1AED822149F1501078080741277">
<ds:Transforms>
<ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
<InclusiveNamespaces PrefixList="wsa oas1 soapenv urn urn1 urn3 urn4" xmlns="http://www.w3.org/2001/10/xml-exc-c14n#" />
</ds:Transform>
</ds:Transforms>
<ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#sha384" />
<ds:DigestValue>uYGJq0jND0mZmaypkWFyLwXT8cshnn3Peo6b7rFN03Wny0Go/sSLzHkp9AcLbW71
</ds:DigestValue>
</ds:Reference>
</ds:SignedInfo>
<ds:SignatureValue>CdZGo2EgOpwArJ5o5SU0Pcu8Y6V/J7UeDMk28Xe3J8IaJ7007XGqB5IHxNHwgQ2SbSUg1iGtKY7t
rK2PCbBf8p8h0yc/tt0PRECjcYJ9uvQZD/_sweS/Sr1EoNGAj1oAt7uGr1qTzONWT0VQUwtAiEdd
MidNqIJz1LTGu0oFiUw2q+xqDkTbqWPnWk3D9/yN7oXJBRSh+eBvyRw0kUiTSns0JkHa6WSJBmIG
io+shxdDqFn/86H4fv1gCrayc+euh+AHS5fPzcL+1zChCTxz7TkqwStuMSUFMBw4wmmglwz74k8w
dZB/suHTC1plSMNVXX5KYE+aTdwQ50q47JXsVg==
</ds:SignatureValue>
<ds:KeyInfo Id="KI-B38D3ED1AED822149F1501078080740274">
<wsse:SecurityTokenReference wsu:Id="STR-B38D3ED1AED822149F1501078080740275">
<wsse:KeyIdentifier EncodingType="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-soap-message-security-1.0#Base64Binary" ValueType="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-x509-token-profile-1.0#X509v3">
MIIHojCCBoqgAwIBAgIESoZHzDANBgkqhkiG9w0BAQsFADCBjjELMAkGA1UEBhMCdXMXGDAWBgNVBAoTD3Uucy4gZ292ZXJubWVudDEjMCEGA1UECxMaZ
GVwYXJ0bWVudCBvZiB0aGUgdHJ1YXN1cnkxIjAgBgNVBAsTGUN1cnRpZmljYXRpb24gQXV0aG9yaXRpZXMxHDAaBgNVBAsTE0R1dmVsb3BtZW50IE9DSU
8gQ0EwHhcNMTUwNDI0MTg0NjIwWhcNMTgwNDI0MTkxNjIwWjCBojELMAkGA1UEBhMCVVMxGDAWBgNVBAoTD1UuUy4gR292ZXJubWVudDEjMCEGA1UECxM
aRGVwYXJ0bWVudCBvZiB0aGUgVHJ1YXN1cnkxITAfBgNVBAsTGE1udGvYbmFsIFJ1dmVudWUgU2VydmljZTEQMA4GA1UECxMHRGV2aWn1czEfMB0GA1UE
AxMwdGVzdG1zcy5hY2EuYWZzaWVwLm51dDCCASIwDQYJKoZIhvcNAQEBBQADggEPADCCAQoCggEBAJXvXWJQJUoaHS3MAVPYpjLD1X1sHRo+QKtx/h4kf
rW7v1dHODKJaBupypVKAt05aGcso3zBRVUTy+IO/Of7LnRwDcEQZaZ19pbTIwaE+2eDUL/p9u5CTCUDK6G1ik8WmF7KTw7ANBXnMhZQ0bLcjvu915FyXr
PGyO/E0X6A05CbnG5wRmkjzjQAFkOLAc9eEv4zBWFGAwfuxjj15RvNwM0u+/1huojLXvHzJanD5ejDy1xqos4n8NCjwLjaudgCxyBpfeLXZvhb2kHCn
dIK9ZwI+zaA6QSSx9dMOAOrljEn7rT5W/G3nXD AeXH+Ui sttmjxaJLPmVVZwo6pv3nikCAwEAaOCA/AwggPsMA4GA1UdDwEB/wQEAwIFoDAXBgNVHSAE
EDAOMAwGCmCGSAF1AwIBMDgwEQYJYIZIAYb4QgEBBAQDAgZAMBGA1UdJQQMMAoGCCsGAQUFBwMBMIIBJAYIKwYBBQUHAQEEggEWMIIBjAkBggrBgeFB
QcwAYYYaHR0cDovL2R1dm9jc3AudHJ1YXMuZ292MDYGCCsGAQUFBzAChipodHRwOi8vZGV2cGtpLnRyZWFzLmdvdi9kZXZ0b2NhX2V1X2FpYS5wN2Mwgb
EGCCsGAQUFBzAChoGkbGRhcDovL2R1dmxkYXAudHJ1YXMuZ292L291PUR1dmVsb3BtZW50JTIwT0NJTyUyMENBLG91PUN1cnRpZmljYXRpb241MjBBdXR
ob3JpdG11cyxvdT1EZXBhcnRtZW50JTIw2Y1MjB0aGU1MjBUcmVhc3VyeSxvPVUuUy41MjBHb3Z1cm5tZW50LGM9VVM/Y0FDZXJ0aWZpY2F0ZTtiaW5h
cnkwPAYDVR0RBDUwM4EVQWx1eC5KL1J1c2hpbkBpcnMuZ292gRppdC5hY2EuawMu cmx0cy5pc3JAaXJzLmdvdjCCAakGA1UdHwSCAaAwggGcMC6gLKAqh

```

```

ihodHRw0i8vZGV2cGtpLnRyZWFrLmdvdi9EZXZfT0NJT19DQTMuY3JsMIIIBaKCCAWsGgggFgpIGhMIGeMQswCQYDVQQGEwJ1czEYMBYGA1UEChMPdS5zLi
Bnb3Z1cm5tZW50MSMwIiQYDVQQLExpkZXBhcnRtZW50IG9mIHRoZSB0cmVhc3VyeTEiMCAGA1UECxMZQ2VydG1maWNhG1vbiBBdXRob3JpdG11czEcMBo
GA1UECxMTRGV2ZWxvcG11bnQgT0NJTbDQTEOMAwGA1UEAxMFQ1JMMTCGgb1sZGFw0i8vZGV2bGRhcC50cmVhcy5nb3YvY249Q1JMMTAzb3U9RGV2ZWxv
cG11bnQ1MjBPQ01PJTiwQ0Esb3U9Q2VydG1maWNhG1vbiUyMEF1dGhvcml0aWVzLG91PWR1cGFydG11bnQ1MjBvZiUyMHRoZSUyMHRyZWFzdXJ5LG89d
S5zLiUyMGdvdmVybml1bnQsYz11cz9jZXJ0aWZpY2F0ZVJ1dm9jYXRpb25MaXN002JpbmFyeTArBgNVHRAEJDAigA8yMDE1MDQyNDE4NDYyMFqBDzIwMT
gwNDI0MTkxNjIwWjAfBgNVHSMEGDAwBRw0GQ6fo2NpZ1h16+Osjhe4NK+WzAdBgNVHQ4EFgQUr9hyDVir2ZjzOuuovLKVPrdnu74wGQYJKoZIhvZ9B0E
ABAwwChsEVjguMQMCA6gwDQYJKoZIhvcNAQELBQADggEBAHXgodB2YZyc0MP1+ps58R0ICGPiVUaX9+tt8+Y1FS/L0aJh7KaWYrN6BiH4kTWeIi3kS3Y/
7qKymUBh7gwXNa02CLnpJ9QzIpPgnEUXZr7uRmyJXDFLZxUFiubiCJrWrthZTGQTTKq3GuxYugnSHmqK+sFxSo5sz/jCbxQQ+bLE7jKFjLEvmcfGSF1Sm
yHjIW0KEfERUZwlDsxBtZ7kXj0TMm8X1Uzkc4opw9zvWHNLNossjiaRqWrG98LEYnz4FMxKwRYXsvftuAMXxGRfMy0FZjWXeGV1Vg/LElnigL2qRgDn6
G2i0A6TpEG4VbUaCdrKsqXNDKCCyUQM1dmBj8=
</wsse:KeyIdentifier>
    </wsse:SecurityTokenReference>
</ds:KeyInfo>
</ds:Signature>
<wsu:Timestamp wsu:Id="TS-B38D3ED1AED822149F1501078080732272">
    <wsu:Created>2017-07-26T14:08:00.732Z</wsu:Created>
    <wsu:Expires>2017-07-26T16:38:00.732Z</wsu:Expires>
</wsu:Timestamp>
</wsse:Security>

<urn:ACATransmitterManifestReqDtl
    wsu:Id="id-8C57FD77752E41888214739626212831137"
    xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
    <urn:PaymentYr>2016</urn:PaymentYr>
    <urn:PriorYearDataInd>0</urn:PriorYearDataInd>
    <urn1:EIN>000000000</urn1:EIN>
    <urn:TransmissionTypeCd>0</urn:TransmissionTypeCd>
    <urn:TestFileCd>T</urn:TestFileCd>
    <!--T or P -->
    <urn:TransmitterNameGrp>
        <urn:BusinessNameLine1Txt>&lt;br/&gt;</urn:BusinessNameLine1Txt>
        <urn:BusinessNameLine2Txt>&lt;br/&gt;</urn:BusinessNameLine2Txt>
    </urn:TransmitterNameGrp>
    <urn:CompanyInformationGrp>
        <urn:CompanyNm>test</urn:CompanyNm>
        <urn:MailingAddressGrp>
            <urn:USAAddressGrp>
                <urn:AddressLine1Txt>0</urn:AddressLine1Txt>

```



```

        <urn3:ACASecurityHeader>
            urn2:UserId>1XXXXX123</urn2:UserId>
        </urn3:ACASecurityHeader>
        <wsa:Action>BulkRequestTransmitter</wsa:Action>
    </soapenv:Header>
    <soapenv:Body>
        <urn4:ACABulkRequestTransmitter
            version="1.0">
            <urn1:BulkExchangeFile>
                <inc:Include href="cid:Test.xml"
                    xmlns:inc="http://www.w3.org/2004/08/xop/include" />
            </urn1:BulkExchangeFile>
        </urn4:ACABulkRequestTransmitter>
    </soapenv:Body>
</soapenv:Envelope>

```

**A sample of ACAGetTransmitterBulkRequestStatus (check status of a transmission):**

```

<soapenv:Envelope
    xmlns:oas1="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
    xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
    xmlns:urn="urn:us:gov:treasury:irs:msg:irstransmitterstatusrequest"
    xmlns:urn1="urn:us:gov:treasury:irs:ext:aca:air:ty17" xmlns:urn2="urn:us:gov:treasury:irs:common"
    xmlns:urn3="urn:us:gov:treasury:irs:msg:acasecurityheader">
    <soapenv:Header xmlns:wsa="http://www.w3.org/2005/08/addressing">
        <wsse:Security
            xmlns:wsse="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
            xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
                <ds:Signature Id="SIG-82E7E6716E615C14D6144736030986660"
                    xmlns:ds="http://www.w3.org/2000/09/xmldsig#">
                    <ds:SignedInfo>
                        <ds:CanonicalizationMethod
                            Algorithm="http://www.w3.org/TR/2001/REC-xml-c14n-20010315#WithComments" />

```

```

<ds:SignatureMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-sha256" />
<ds:Reference URI="#TS-82E7E6716E615C14D6144736030985954">
    <ds:Transforms>
        <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#WithComments">
            <InclusiveNamespaces PrefixList="wsse wsa oas1 soapenv urn urn1 urn2 urn3"
                xmlns="http://www.w3.org/2001/10/xml-exc-c14n#WithComments" />
        </ds:Transform>
    </ds:Transforms>
    <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256" />
    <ds:DigestValue>Timestamp</ds:DigestValue>
    <!-- DigestValue from Timestamp -->
</ds:Reference>
<ds:Reference URI="#id-82E7E6716E615C14D6144736030986558">
    <ds:Transforms>
        <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
            <InclusiveNamespaces PrefixList="wsa oas1 soapenv urn1 urn2
urn3"
                xmlns="http://www.w3.org/2001/10/xml-exc-c14n#" />
        </ds:Transform>
    </ds:Transforms>
    <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256" />
    <ds:DigestValue>ACABusinessHeader</ds:DigestValue>
    <!-- DigestValue from ACABusinessHeader -->
</ds:Reference>
<ds:Reference URI="#id-82E7E6716E615C14D6144736030986559">
    <ds:Transforms>
        <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-c14n#">
            <InclusiveNamespaces PrefixList="oas1 soapenv urn1 urn2 urn3"
                xmlns="http://www.w3.org/2001/10/xml-exc-c14n#" />
        </ds:Transform>
    </ds:Transforms>
    <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256" />
    <ds:DigestValue>ACABulkRequestTransmitterStatusDetailRequest</ds:DigestValue>
    <!-- DigestValue from ACABulkRequestTransmitterStatusDetailRequest -->
</ds:Reference>
</ds:SignedInfo>

```

```

<ds:SignatureValue>SignatureValue</ds:SignatureValue>
<ds:KeyInfo Id="KI-82E7E6716E615C14D6144736030986456">
<wsse:SecurityTokenReference wsu:Id="STR-82E7E6716E615C14D6144736030986457">
<wsse:KeyIdentifier
  EncodingType="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-soap-message-security-1.0#Base64Binary"
  ValueType="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-x509-token-profile-1.0#X509v3">CertificateValue</wsse:KeyIdentifier>
  </wsse:SecurityTokenReference>
</ds:KeyInfo>
</ds:Signature>
<wsu:Timestamp wsu:Id="TS-82E7E6716E615C14D6144736030985954">
  <wsu:Created>2015-11-12T20:31:49.859Z</wsu:Created>
  <wsu:Expires>2015-11-12T23:01:49.859Z</wsu:Expires>
</wsu:Timestamp>
</wsse:Security>
<urn:ACABusinessHeader wsu:Id="id-82E7E6716E615C14D6144736030986558"
  xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
  <urn1:UniqueTransmissionId>UNITTEST-c023-4c48-a01a-000000000000:SYS12:XXXXX::T
  </urn1:UniqueTransmissionId>
  <urn2:Timestamp>2015-11-12T15:31:49Z</urn2:Timestamp>
</urn:ACABusinessHeader>
<urn3:ACASecurityHeader />
<wsa:Action>RequestSubmissionStatusDetail</wsa:Action>
</soapenv:Header>
<soapenv:Body>
  <urn:ACABulkRequestTransmitterStatusDetailRequest
    version="1.0" wsu:Id="id-82E7E6716E615C14D6144736030986559"
    xmlns:wsu="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd">
    <urn1:ACABulkReqTrnsmtStsReqGrpDtl>
      <urn2:ReceiptId>1095C-15-00000787</urn2:ReceiptId>
    </urn1:ACABulkReqTrnsmtStsReqGrpDtl>
  </urn:ACABulkRequestTransmitterStatusDetailRequest>
</soapenv:Body>
</soapenv:Envelope>

```

### 5.3.1.5 Digital Certificates

Digital certificates bind digital information to physical identities and provide non-repudiation and data integrity. Before you begin the enrollment process, each entity should obtain one valid digital certificate issued by an approved certificate authority (CA). Automated Enrollment only recognizes and accepts digital certificates issued by IRS approved certificate authorities, listed below. The ISS-A2A channel requires the full certificate chain including the root certificate and all CA certificates used for signing. There should only be one certificate per TCC/Role, and it should not be used by any other service.

**Table 5-2: IRS Authorized Certificate Issuing Authorities**

Certificate Authority	Type of Certificate
Identrust ACES SSL, naming a server	Go to <a href="#">Identrust</a> and choose the Certificates menu and the type of ACES (currently <a href="#">ACES SSL</a> ). The type to choose is "ACES SSL Server".
Identrust ACES Business Representative, naming an individual	Go to <a href="#">Identrust</a> and choose the Certificates menu and the type of ACES (currently <a href="#">ACES Business Representative</a> ). The type to choose is "ACES Business Representative".
ORC ACES Business Representative, naming an individual	Go to <a href="#">ACES ORC</a> and follow the "Get Certificate" button. When you reach the "Select a Certificate" screen, choose "Business Representative". Please note that we have not tested with the Government Representative types and do not know if they will work with our system. We don't expect state and local governments to use ORC Government Representative certificates.
ORC ECA, naming a server	Go to <a href="#">ORC ECA</a> and select "Order Component/Server Certificates". On the screen for <a href="#">order</a> , please choose "Server Certificates".
IGC Medium Assurance Device, naming a device	Go to <a href="#">Identrust Government Agencies</a> and click on "Buy Now", you'll see a long list of Government programs for which you can get a certificate and select the "Department of Treasury - IRS MeF e-File" or "Department of Treasury - IRS Secure Data Transfer". The type to choose is "IGC Medium Assurance Device".

### 5.3.2 ACA Transmitter Business Header Elements

**Table 5-3: Transmitter Business Header Elements**

Element	Description
<a href="#">UniqueTransmissionId</a>	Unique identifier assigned by the transmitter to each

	transmission
<i>Timestamp</i>	The date and time (based on the local time zone of the transmitter) that the SOAP Message was created

### 5.3.3 ACA AIR Transmission Manifest

The Manifest provides information about the submission and must pass validation checks before submission can be accepted. It consists of details about the transmitter and also about the file transmitted.

## 5.4 SOAP Body

The SOAP Body contains the request message and the Form Data File as an MTOM attachment submitted by the transmitter application. When retrieving acknowledgments, the SOAP body contains the response message, and optionally the Error Data File as an MTOM attachment, which informs the transmitter of any errors in the submissions.

### 5.4.1 Message Attachment File Format

Only one Form Data File will be accepted as an attachment sent by a transmitter and, in the event errors are found during processing, only one Error Data File will be returned as an attachment by IRS to the transmitter. The Form Data File and the Error Data File will be in XML format and will be attached to the message using the W3C MTOM specification.

The Form Data File must be encoded in UTF-8 without BOM file format prior to MTOM encoding during submission. Please refer to the fault messages below.

Fault Code	Service Leg	Reason	A2A - Fault Message	UI - Fault Message
TPE1118	Request	Manifest file is using UTF-8 BOM encoding	*Error not applicable to ISS-A2A	[TPE1118] Our system has detected UTF-8 BOM encoding in the Manifest file and cannot be interpreted. Please review the XML standards outlined in Section 10
TPE1208	Request	Form file is using UTF-8 BOM encoding	Our system has detected UTF-8 BOM encoding in the Form file and cannot be interpreted. Please review the XML standards outlined in Section 10	[TPE1208] Our system has detected UTF-8 BOM encoding in the Form file and cannot be interpreted. Please review the XML standards outlined in Section 10

## 5.4.2 Message Attachment Content Type

ISS-A2A AIR web services require transmitters to use SOAP-over-HTTP messaging with MTOM to send XML data files. The file that is encoded in the MTOM attachment must be uncompressed native XML. The content type for the MTOM encoded binary object identified in the Manifest header must be “*text/xml*”. If the content-transfer-encoding of the Form Data File is 7-bit, “Pretty Print” formatting must be used.

## 5.5 ISS-A2A Web Services Summary

Transmitters that take advantage of the A2A channel to submit their transmissions will have to program their systems to generate and transmit information returns via SOAP Messages (Request/Response). The transmitter will implement a Web Service Client on their host systems and will configure their SOAP Messages so that they are delivered to the Web Service endpoint exposed by IRS.

The SOAP Message is made up of a HTTP Header and a SOAP Envelope. The SOAP Envelope contains a SOAP Header and a SOAP Body. The XML elements in the SOAP Header facilitate transporting the information returns between the end points representing applications (Application to Application or A2A). The SOAP Header contains the URL for the Web Service endpoint exposed at IRS as well as security mechanisms for authenticating the transmitter.

The SOAP Body contains the XML elements that make up the Information Return transmission. ACA Information Return XML Schema will ensure that all required information pertaining to the transmitter and transmission is captured in corresponding XML elements.

The *normal processing* for a transmission is as follows:

- Transmitter sends a transmission to IRS via SOAP Request message
- Transmitter receives a SOAP Response message which includes the Receipt ID assigned and the status (i.e. Processing or Rejected) to the transmission by IRS
- IRS processes the transmission
- Transmitter sends a request for Acknowledgment via SOAP Request message to IRS with the Receipt ID corresponding to the transmission for which they are requesting status
- Transmitter receives a SOAP Response message which provides the status of the transmission (i.e., Accepted, Accepted with Errors, Rejected, Processing, Not Found, and Partially Accepted) and any errors in the Error Data File attached to the SOAP Response message.

The *exception path* covers the following error processing:

- Manifest errors (errors relating to transmitter information and/or transmission details)

- **Duplicate transmissions**
- **Business Rule errors**
- **System errors**

Transmitters transmitting ACA Information Returns have two channels with which they can submit transmissions containing the information returns. IRS has directed that ACA Information Returns will be transmitted as XML documents.

Following services (service names) are available to the transmitters through ISS-A2A Channel:

- **IRS-ACASubmitService (ACAGetTransmitterBulkRequestService.wsdl) - 1095BC\_Transmission**
- **IRS-ACAAckngService (ACAGetTransmitterBulkRequestStatus.wsdl) - 1095BC\_Status\_Request**

### 5.5.1 Overview of Transmission and Submission

A transmission must consist of specific information pertaining to the transmitter and the transmission and at least one transmittal and the corresponding detail records. The transmittal information equates to the Form 1094 and the corresponding detail records equate to Form 1095.

Note that a **transmission** consists of the following:

- **Transmitter, transmission, and transmission summary information**
- **All of the Form 1094/1095 forms and summary information**

A **submission** consists of one Form 1094 and its associated Form 1095 forms and the submission summary information. A **submission** may also consist of one Form 1094-C and zero Form 1095-Cs, whenever the Form 1094-C is marked as a correction to an Authoritative Transmittal (for a previously accepted Form 1094-C). A transmission must contain at least one submission. A transmission can contain more than one submission. A transmission cannot commingle Forms 1094/1095-B and Forms 1094/1095-C.

In the example below, the text in **brown/orange** is required for A2A SOAP Transactions between two exposed Web Service endpoints and do not contain any information pertinent to the transmission. The text in **blue** are comments and have no effect on the processing of the transmission.

```

<SOAP-ENV:Envelope>
  <SOAP-ENV:Header>
    <!-- WS Addressing -->
    <!-- WS Security -->
  </SOAP-ENV:Header>
  Example of 1094B and 1095B schema
  <Form109495BTransmittalUpstream>
    <Form1094BUpstreamDetail>
      <!-- ALL TRANSMITTAL/1094B INFORMATION GOES HERE -->
      <Form1095BUpstreamDetail>
        <!-- ALL TRANSMITTAL/1095B INFORMATION GOES HERE -->
      </Form1095BUpstreamDetail>
      <Form1095BUpstreamDetail>
        <!-- ALL TRANSMITTAL/1095B INFORMATION GOES HERE -->
      </Form1095BUpstreamDetail>
      <Form1094BUpstreamDetail>
    </Form109495BTransmittalUpstream>
    Example of 1094C and 1095C schema
    <Form109495CTransmittalUpstream>
      <Form1094CUpstreamDetail>
        <!-- ALL TRANSMITTAL/1094C INFORMATION GOES HERE -->
        <Form1095CUpstreamDetail>
          <!-- ALL TRANSMITTAL/1095C INFORMATION GOES HERE -->
        </Form1095CUpstreamDetail>
        <Form1094CUpstreamDetail>
      </Form109495CTransmittalUpstream>
    </SOAP-ENV:Body>
  </SOAP-ENV:Envelope>

```

**Figure 5-2: High Level Form schema structure**

The information contained within the open element tag `<Form109495BTransmittalUpstream>` and the close element tag `</Form109495BTransmittalUpstream>` or `<Form109495CTransmittalUpstream>` and the closing element tag `</Form109495CTransmittalUpstream>` are the “as-is” transmission submitted by the transmitter. This XML will be retained in the Information Return Repository as received from the transmitter without alteration, while ensuring appropriate access controls are in place to protect the integrity of the transmission.

The information required for the transmittal and transmission is contained within the element tags `<Form109495BUpstreamDetail>` and `</Form109495BUpstreamDetail>` for Form 1094-B and Form 1095-B. The tags `<Form109495CUpstreamDetail>` and `</Form109495CUpstreamDetail>` are for Form 1094-C and Form 1095-C.

Transmitter meta-data information goes in the Manifest File and Transmittal information is in the Form Data File.

This is the information that equates to the “T” Record documented in Publication 1220, *Specifications for Electronic Filing of Forms 1097, 1098, 1099, 3921, 3922, 5498, and W-2G*.

The information required for the detail information (1095X) associated with each transmittal (1094X) is contained within the variable number of element tags `<Form1095BUpstreamDetail>` `</Form1095BUpstreamDetail>` and `<Form1095CUpstreamDetail>` `</Form1095CUpstreamDetail>`. This is the information that equates to the “B” Record documented in Publication 1220.

## 5.5.2 IRS-ACA Submit Transmission Request Message

The `ACAGetTransmitterBulkRequestService` operation allows the transmitter to send transmissions to the web service endpoint exposed at IRS. The service name within the WSDL file is `1095BC_Transmission`. The binding for the exposed web service is as follows:



```
<wsdl:binding name="BulkRequestTransmitterBinding" type="BulkRequestTransmitterPortType">
  <soapbind:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
  <wsp:PolicyReference URI="#Addressing"/>
  <wsdl:operation name="BulkRequestTransmitter">
    <soapbind:operation soapAction="BulkRequestTransmitter"/>
    <wsdl:input>
      <soapbind:header message="ACASecurityHeader" part="ACASecurityHeader" use="literal"/>
      <soapbind:header message="WSSESecurity" part="WSSESecurity" use="literal"/>
      <soapbind:header message="ACABusinessHeader" part="ACABusinessHeader" use="literal"/>
      <soapbind:header message="ACATransmitterManifestReqDtl" part="ACATransmitterManifestReqDtl" use="literal"/>
      <soapbind:body parts="BulkRequestTransmitter" use="literal"/>
    </wsdl:input>
    <wsdl:output>
      <soapbind:header message="ACABusinessHeader" part="ACABusinessHeader" use="literal"/>
      <soapbind:body parts="BulkRequestTransmitterResponse" use="literal"/>
    </wsdl:output>
    <wsdl:fault name="fault">
      <soapbind:fault name="fault" use="literal"/>
    </wsdl:fault>
  </wsdl:operation>
</wsdl:binding>
```

Figure 5-3: ACA Binding – `ACAGetTransmitterBulkRequestService.wsdl`

The SOAP Message Header in the SOAP Request message, `ACATransmitterStatusReqBody`, requires the following elements (see `<wsdl:input>` in Figure 5-3 above):

Table 5-4: Transmission SOAP Message Binding – SOAP Request Message Header

SOAP Binding – Input Header Element	SOAP Binding – Header Element Description
ACASecurityHeader	For A2A transmissions the ASID associated with the certificate must be provided in the <code>UserID</code> element.
WSSESecurity	Requires Signature (Signed Info, Signature Value, KeyInfo) and a Timestamp
ACABusinessHeader	Requires the Unique Transmission ID ( <code>UTID</code> ) and a Timestamp
ACATransmitterManifestReqDtl	Requires the metadata (information) pertaining to the transmitter and the transmission

The SOAP Message Body in the SOAP Request message requires the following elements:

**Table 5-5: Transmission SOAP Message Binding – SOAP Request Message Body**

SOAP Binding – Input Header Element	SOAP Binding – Header Element Description
BulkRequestTransmitter	Requires the <i>BulkExchangeFile</i> is the base64Binary MTOM encoded attachment containing the Form Data File

The SOAP Message Header in the SOAP Response message includes the following elements:

**Table 5-6: Transmission SOAP Message Binding – SOAP Response Message Header**

SOAP Binding – Output Header Element	SOAP Binding – Header Element Description
ACABusinessHeader	Includes the Unique Transmission ID ( <i>UTID</i> ) and a Timestamp
ACASecurityHeader	IRS Credentials for identification and authentication
WSSESecurity	Securing the message according to OASIS Standards

The SOAP Message Body in the SOAP Response message includes the following elements:

**Table 5-7: Transmission SOAP Message Binding – Soap Response Message Body**

SOAP Binding – Output Body Element	SOAP Binding – Body Element Description
ACATransmitterStatusRespBody	Includes " <i>TransmissionStatusCd</i> ", " <i>ReceiptId</i> ", " <i>irs:ErrorMessageDetail</i> "

### **5.5.3 IRS-ACA Retrieve Acknowledgement Request Message**

The *ACAGetTransmitterBulkRequestStatus* operation allows the transmitter to send a request for processing status and detail for transmissions they previously sent to IRS. The service name within the WSDL file is *1095BC\_Status\_Request*. The binding for the exposed web service is as follows:

```

<wsdl:binding name="GetACATransmitterStatusReqBinding"
  type="ACATransmitterStatusReqPortType">
  <soapbind:binding style="document" transport="http://schemas.xmlsoap.org/soap/http" />
  <wsdl:operation name="GetACATransmitterStatusReqOperation">
    <soapbind:operation soapAction="RequestSubmissionStatusDetail" />
    <wsdl:input>
      <soapbind:header message="ACASecurityHeader" part="ACASecurityHeader" use="literal" />
      <soapbind:header message="WSSESecurity" part="WSSESecurity" use="literal" />
      <soapbind:header
        message="ACABusinessHeader"
        part="ACABusinessHeader" use="literal" />
      <soapbind:body parts="ACATransmitterStatusReqBody" use="literal" />
    </wsdl:input>
    <wsdl:output>
      <soapbind:header
        message="ACABusinessHeader"
        part="ACABusinessHeader" use="literal" />
      <soapbind:body parts="ACATransmitterStatusRespBody" use="literal" />
    </wsdl:output>
    <wsdl:fault name="fault">
      <soapbind:fault name="fault" use="literal" />
    </wsdl:fault>
  </wsdl:operation>
</wsdl:binding>

```

**Figure 5-4: ACA Binding – ACAGetTransmitterBulkRequestStatus.wsdl**

The SOAP Message Header in the SOAP Request message requires the following elements (see <wsdl:input> in Figure 5-4 above):

**Table 5-8: Status Request SOAP Message Binding – SOAP Request Message Header**

SOAP Binding – Input Header Element	SOAP Binding – Header Element Description
ACASecurityHeader	For A2A transmissions the ASID associated with the certificate must be provided in the <i>UserID</i> element.
WSSESecurity	Requires Signature (Signed Info, Signature Value, KeyInfo) and a Timestamp
ACABusinessHeader	Requires the Unique Transmission ID ( <i>UTID</i> ) and a Timestamp

The SOAP Message Body in the SOAP Request message requires the following elements:

**Table 5-9: Status Request SOAP Message Binding – SOAP Request Message Body**

SOAP Binding – Input Body Element	SOAP Binding – Body Element Description
ACATransmitterStatusReqBody	Includes Receipt ID

The SOAP Message Header in the SOAP Request message includes the following elements:

**Table 5-10: Status SOAP Message Binding – SOAP Request Message Header**

SOAP Binding – Output Header Element	SOAP Binding – Header Element Description
ACASecurityHeader	For A2A transmissions the ASID associated with the

SOAP Binding – Output Header Element	SOAP Binding – Header Element Description
	certificate must be provided in the <i>UserID</i> element.
WSSESecurity	Requires Signature (Signed Info, Signature Value, KeyInfo) and a Timestamp
ACABusinessHeader	Requires the Unique Transmission ID ( <i>UTID</i> ) and a Timestamp

The SOAP Message Body in the SOAP Response message includes an MTOM attachment containing the following elements for each error identified during processing:

**Table 5-11: Transmission SOAP Message Binding – Soap Response Message Body**

SOAP Binding – Output Body Element	SOAP Binding – Body Element Description
BulkRequestTransmitterResponse	Includes the Unique Record Identifier, <i>ErrorMessageCd</i> , <i>ErrorMessageTxt</i> , and <i>XpathContent</i>

#### 5.5.4 A2A Channel TY2015, TY2016, TY2017, and TY2018 Schema/WSDL Guidance

**Transmitters sending returns through A2A Channel (AATS and Production):**

- AIR will accept the Current Tax Year and all Prior Tax Years Returns
- Transmitters should use latest TY2018 schema version to generate Forms 1094/1095-B or Forms 1094/1095-C Form Data (payload) for TY2018 returns
- Transmitters should use TY2017 schemas to generate Forms 1094/1095-B or Forms 1094/1095-C Form Data (payload) for TY2017 returns
- Transmitters should use TY2016 schemas to generate Forms 1094/1095-B or Forms 1094/1095-C Form Data (payload) for TY2016 returns
- Transmitters should use TY2015 schemas to generate Forms 1094/1095-B or Forms 1094/1095-C Form Data (payload) for TY2015 returns
- Transmitters should use TY2018 schema package and deploy at their end
- Transmitters should use TY2018 WSDL's:  
ACAGetTransmitterBulkRequestService.wsdl to transmit TY2015, TY2016, TY2017 and TY2018 transmissions  
ACAGetTransmitterBulkRequestStatus.wsdl to check the status of TY2015, TY2016, TY2017 and TY2018 transmissions
- TY2018 WSDL capable to generate SOAP envelope for TY 2015, TY2016, TY2017 and TY2018 transmissions
- SOAP envelop generated by TY2018 WSDL's contained: ACA Header, WS-Security, ACA Business header and Manifest information which are same for TY2015, TY2016, TY2017 and TY2018 transmission (namespaces are different in payload)
- Forms 1094/1095-B and Forms 1094/1095-C : Manifest element:
- <PaymentYr>**2015**</PaymentYr> → Transmission will be checked and validated against TY2015 schema and business rules  
<PaymentYr>**2016**</PaymentYr> → Transmission will be checked and validated against TY2016 schema and business rules

<PaymentYr>**2017**</PaymentYr> → Transmission will be checked and validated against TY2017 schema and business rules

<PaymentYr>**2018**</PaymentYr> → Transmission will be checked and validated against TY2018 schema and business rules

- Transmitter should use Manifest schema from TY2018 schema package to generate TY2015, TY2016, TY2017 and TY2018 Manifest file. The manifest will be validated against the 2018 schema.

## 6 Identifying Transmissions and Records

---

### 6.1 Identifying the Transmission Type

A transmitter can submit three types of ACA transmissions to IRS:

**Table 6-1: Transmission Type Codes**

Type of Transmission	Description
Original Records ("O")	A transmission containing original Form 1094/1095 records
Correction Records ("C")	A transmission containing correction Form 1094/1095 records
Replace Transmission ("R")	A transmission containing original Form 1094/1095 records to replace a transmission that IRS rejected

Note: A transmission containing corrected 1094/1095 records that IRS rejected must be resubmitted with TransmissionTypeCd = "C"

The type of transmission is identified in the XML Schema in the *ACATransmitterManifestReqDtl* by the data included in the *TransmissionTypeCd* element. The *TransmissionTypeCd* element is required and the eFile Type *TransmissionTypeCdType* data must be one of the following enumerated values shown below:

```
<xsd:simpleType name="TransmissionTypeCdType">
  <xsd:annotation>
    <xsd:documentation>
      <Component>
        <DictionaryEntryNm>Transmission Type Code</DictionaryEntryNm>
        <MajorVersionNum>1</MajorVersionNum>
        <MinorVersionNum>0</MinorVersionNum>
        <VersionEffectiveBeginDt>2015-01-15</VersionEffectiveBeginDt>
        <VersionDescriptionTxt>Initial version</VersionDescriptionTxt>
        <DescriptionTxt>Transmission Type Indicates whether Transmission has
Original Records, Corrected Records, or is a Replacement</DescriptionTxt>
      </Component>
    </xsd:documentation>
  </xsd:annotation>
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="O"/>
    <xsd:enumeration value="C"/>
    <xsd:enumeration value="R"/>
  </xsd:restriction>
</xsd:simpleType>
```

A transmission consisting of original records which have not been previously submitted to IRS is coded "O".

A transmission containing corrected records consists of corrections to records that have been submitted to IRS and have been accepted by IRS is coded “C”.

A transmission that replaces a rejected transmission or that contains submissions that replace rejected submissions is coded “R”.

Note: Do not comingle submissions of different types (O, C, or R) in the same transmission. Each transmission must contain only one type of submission. Additionally, each submission must only contain one type of records (O, C, or R).

## 6.2 Identifying the Transmission Status (Acknowledgement)

When the transmitter retrieves their Acknowledgement, the *ACABulkRequestTransmitterResponse* includes the XML element *TransmissionStatusCd* which conveys the status of the transmission. The eFile Type *TransmissionStatusCodeType* data conveys one of the following enumerated values shown below:

```
<xsd:simpleType name="TransmissionStatusCodeType">
  <xsd:annotation>
    <xsd:documentation>
      <Component>
        <DictionaryEntryNm>ACA Information Returns (AIR) Submission Status
        Type</DictionaryEntryNm>
        <MajorVersionNum>2</MajorVersionNum>
        <MinorVersionNum>0</MinorVersionNum>
        <VersionEffectiveBeginDt>2012-09-01</VersionEffectiveBeginDt>
        <VersionDescriptionTxt>Initial version</VersionDescriptionTxt>
        <DescriptionTxt>The AIR form(s) submission status type code
        types.</DescriptionTxt>
        <DataElementId/>
      </Component>
    </xsd:documentation>
  </xsd:annotation>
  <xsd:restriction base="xsd:string">
    <xsd:enumeration value="Accepted"/>
    <xsd:enumeration value="Accepted with Errors"/>
    <xsd:enumeration value="Partially Accepted"/>
    <xsd:enumeration value="Rejected"/>
    <xsd:enumeration value="Processing"/>
    <xsd:enumeration value="Not Found"/>
  </xsd:restriction>
</xsd:simpleType>
```

A snippet of XML included in the Acknowledgement that will include the Transmission Status Code follows in Figure 6-1:

```
<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
<soap:Header>
<acaBusHeader:ACABusinessHeader
  xmlns:irs="urn:us:gov:treasury:irs:common"
  xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty18"
  xmlns:ns3="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
  utility-1.0.xsd">
```

```

xmlns:ns4="http://www.w3.org/2000/09/xmldsig#"
xmlns:acaBusHeader="urn:us:gov:treasury:irs:msg:acabusinessheader"
xmlns:ns6="urn:us:gov:treasury:irs:msg:irsacabulkrequesttransmitter"
xmlns:ns7="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
xmlns:ns8="urn:us:gov:treasury:irs:msg:acasecurityheader">
<UniqueTransmissionId>Ae2320b33-f329-31d4-a716-394655440000:SYS12:XXXXX::T
    </UniqueTransmissionId>
<irs:Timestamp>2018-01-01T21:18:58Z</irs:Timestamp>
    </acaBusHeader:ACABusinessHeader>
</soap:Header>
<soap:Body>
<acaBodyReq:ACABulkRequestTransmitterResponse
    xmlns:irs="urn:us:gov:treasury:irs:common"
    xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty18"
    xmlns:ns3="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd"
    xmlns:ns4="http://www.w3.org/2000/09/xmldsig#"
    xmlns:ns5="urn:us:gov:treasury:irs:msg:acabusinessheader"
    xmlns:acaBodyReq="urn:us:gov:treasury:irs:msg:irsacabulkrequesttransmitter"
    xmlns:ns7="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd"
    xmlns:ns8="urn:us:gov:treasury:irs:msg:acasecurityheader">
        <TransmissionStatusCd>Processing</TransmissionStatusCd>
        <irs:ReceiptId>1094B-19-00000000</irs:ReceiptId>
    </acaBodyReq:ACABulkRequestTransmitterResponse>
</soap:Body>
</soap:Envelope>

```

**Figure 6-1: Identifying the Transmission Status Code**

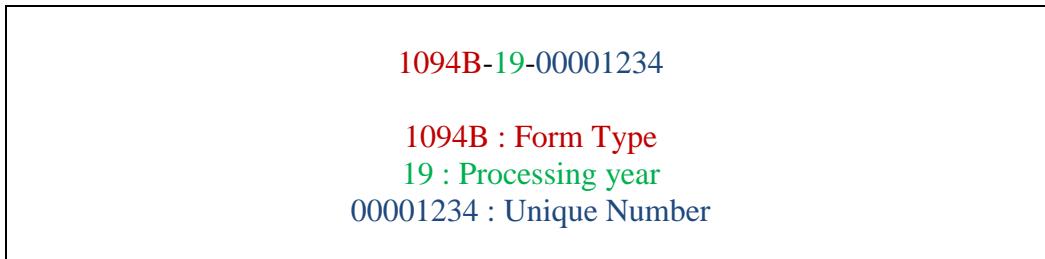
All of the records within a transmission have been accepted for processing by IRS when the Transmission Status Code is one of either “Accepted” or “Accepted with Errors” or “Partially Accepted”.

- If the Transmission Status Code is “Accepted”, it indicates that AIR did not find any errors in any of the submissions within the transmission.
- If the Transmission Status Code is “Accepted with Errors”, the transmission and all of the records within the transmission have been accepted by IRS. However, errors identified in the transmission are expected to be corrected and submitted in another transmission where the *TransmissionTypeCd* element is set to “C” for corrections.
- If the Transmission Status Code is “Partially Accepted”, the IRS has successfully processed and accepted the transmission with at least one rejected submission included in the transmission, (but not all submissions). The rejected submission must be replaced, where the *TransmissionTypeCd* element is set to “R” for replacement.

When the Transmission/Submission Status Code is “Rejected”, the transmission has been rejected and will have to be replaced where the *TransmissionTypeCd* element is set to “R” for replacement.

## 6.3 Receipt ID or UTID as Basis for Uniquely Identifying Transmissions and Records

When the transmitter sends a transmission to IRS, a Receipt ID is returned to the transmitter to indicate that IRS received the transmission. The Receipt ID, along with the transmitter's Transmitter Control Code (TCC), or the UTID is the key information required for the transmitter to retrieve the Acknowledgement (processing status and error detail) for a given transmission. The structure of the Receipt ID is as shown in Fig 6-2.



**Figure 6-2: Structure of a Receipt ID**

Note: The Receipt ID format for TY2018 ACA Assurance Testing System (AATS) begins with either AATS1094B or AATS1094C. For prior year ( TY2015 and TY2016) transmissions, the Receipt ID format begins with either AATS1095B or AATS1095C. The Processing year within the Receipt ID is based on the year the transmission was filed. For example, if filed in November of 2018 the PY within the Receipt ID would be 18 ( AATS1095B-18-00001234. If filed in January of 2019 it would be 19 ( AATS1095B-19-00001234).

The Receipt ID format for TY2018 Production transmissions (PY2019) begins with either 1094B or 1094C: (i.e., "1094B-19-00001234" or "1094C-19-00001234"). For prior year (TY2015 and TY2016) Production transmissions, the Receipt ID format begins with either 1095B or 1095C: (i.e., "1095B-19-00001234" or "1095C-19-00001234").

In sample submission response message shown below in Figure 6-3, the Receipt ID assigned to a received transmission is **“1094B-18-00000000”**. In addition to uniquely identifying the transmission to both IRS and the transmitter, the Receipt ID also includes information about type of the forms contained in the transmission (in this case Forms 1094/1095-B) and the processing year (2019) in which AIR received the transmission. The Receipt ID returned to the transmitter should be kept with the Form Data File submitted in the transmission and protected from loss or deletion.

Figure 6-3 includes a sample Response message that the transmitter would receive if they had submitted the transmission via the ISS-A2A channel. Please note that the TransmissionStatusCd is "Processing". The TransmissionStatusCd contained in the Response message to a transmission request will either be "Processing" or "Rejected".

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
  <soap:Header>
    <ns5:ACABusinessHeader ns3:Id=?>
      xmlns:ns6="urn:us:gov:treasury:irs:msg:acasecurityheader"
      xmlns:ns5="urn:us:gov:treasury:irs:msg:irstransmitterstatusrequest"
      xmlns:ns4="http://www.w3.org/2000/09/xmldsig#"
      xmlns:ns3="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd"
      xmlns:ns2="urn:us:gov:treasury:irs:common" xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty18">
        <UniqueTransmissionId>AIR190000-0007-0000-1006-000000014298:SYS12:BB077::T
        </UniqueTransmissionId>
        <ns2:Timestamp>2019-02-17T19:33:35Z</ns2:Timestamp>
      </ns5:ACABusinessHeader>
    </soap:Header>
    <soap:Body>
      <ns5:ACABulkRequestTransmitterStatusDetailResponse
        xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty18" xmlns:ns2="urn:us:gov:treasury:irs:common"
        xmlns:ns3="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-utility-1.0.xsd"
        xmlns:ns4="http://www.w3.org/2000/09/xmldsig#"
        xmlns:ns5="urn:us:gov:treasury:irs:msg:irstransmitterstatusrequest"
        xmlns:ns6="urn:us:gov:treasury:irs:msg:acasecurityheader">
        <ACABulkRequestTransmitterResponse>
          <TransmissionStatusCd>Processing</TransmissionStatusCd>
          <ns2:ReceiptId>1094B-PY-00000000</ns2:ReceiptId>
        </ACABulkRequestTransmitterResponse>
      </ns5:ACABulkRequestTransmitterStatusDetailResponse>
    </soap:Body>
  </soap:Envelope>

```

**Figure 6-3: Sample AIR ISS-A2A Transmission Intake Response Message**

If the transmitter uses the AIR ISS-UI channel to upload a transmission, the Receipt ID assigned to that transmission upon receipt is returned and displayed on the web browser as shown below in Figure 6-4.

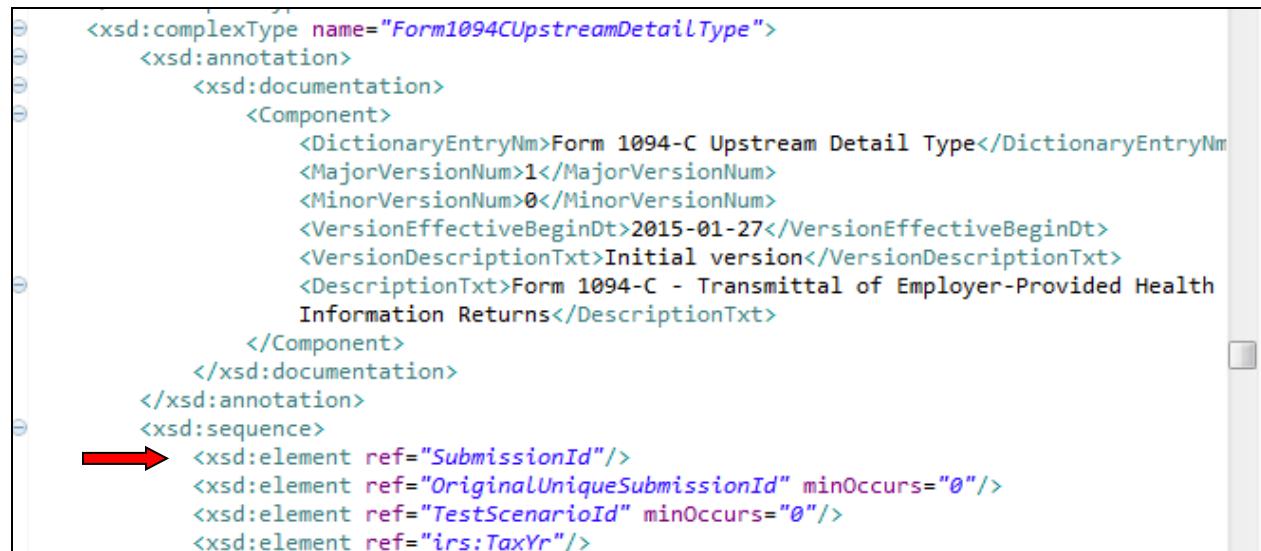
Transmission Confirmation					
<p>Your uploaded file has been transmitted. Please see details of this transmission below. It is <b>highly recommended</b> to print this page to keep for your records. Remember to check the status of this transmission by using the Receipt ID provided below to ensure your file is accepted.</p>					
<p><b>Receipt ID:</b> AATS1094B-19-00000798  <b>Date and Time:</b> 09/17/2018 05:34:30 PM +00:00</p>					
<p><b>Your Transmitted Form File</b></p> <table border="1"> <thead> <tr> <th>File Name</th> <th>File Size</th> </tr> </thead> <tbody> <tr> <td>1094B_Request_BB07X_20180907T071009000Z.xml</td> <td>10.54 KB</td> </tr> </tbody> </table>		File Name	File Size	1094B_Request_BB07X_20180907T071009000Z.xml	10.54 KB
File Name	File Size				
1094B_Request_BB07X_20180907T071009000Z.xml	10.54 KB				
<p><b>Error</b></p> <table border="1"> <thead> <tr> <th>Error Details</th> <th>Error Code</th> </tr> </thead> <tbody> <tr> <td>System authorization error - SysError1.</td> <td>HEADER-005</td> </tr> </tbody> </table>		Error Details	Error Code	System authorization error - SysError1.	HEADER-005
Error Details	Error Code				
System authorization error - SysError1.	HEADER-005				

**Figure 6-4: Sample AIR ISS-UI Transmission Intake Response Message**

### 6.3.1 Uniquely Identifying Forms 1094 within a Transmission

When the transmitter generates the Form Data File, there are XML elements included in the schema that provide for uniquely identifying submission(s) within the transmission and record(s) within the submission. A submission is identified by the Form 1094 transmittal included in the

transmission. Each Form 1094 transmittal XML schema (both for Form 1094-B and for Form 1094-C) includes the XML element *SubmissionId* within the respective *Form1094BUpstreamDetailType* or *Form1094CUpstreamDetailType* eFile Type. The XML Schema snippet for Form 1094-C that includes the *SubmissionId* follows:



```

<xsd:complexType name="Form1094CUpstreamDetailType">
  <xsd:annotation>
    <xsd:documentation>
      <Component>
        <DictionaryEntryNm>Form 1094-C Upstream Detail Type</DictionaryEntryNm>
        <MajorVersionNum>1</MajorVersionNum>
        <MinorVersionNum>0</MinorVersionNum>
        <VersionEffectiveBeginDt>2015-01-27</VersionEffectiveBeginDt>
        <VersionDescriptionTxt>Initial version</VersionDescriptionTxt>
        <DescriptionTxt>Form 1094-C - Transmittal of Employer-Provided Health Information Returns</DescriptionTxt>
      </Component>
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <!-- Red arrow points to this line --> <xsd:element ref="SubmissionId"/>
    <xsd:element ref="OriginalUniqueSubmissionId" minOccurs="0"/>
    <xsd:element ref="TestScenarioId" minOccurs="0"/>
    <xsd:element ref="irs:TaxYr"/>
  </xsd:sequence>
</xsd:complexType>

```

**Figure 6-5: Submission Id is Required for Every Form 1094 in the Transmission**

The *SubmissionIdType* eFile Type is defined in the XML Schema as a string type. The Submission ID cannot be less than 1 (one) and cannot include fractions or decimal values. The Submission ID must not be duplicated within a transmission. IRS recommends that the Submission ID start at 1 for the first Form 1094 transmittal within the transmission and increment by 1 for every subsequent Form 1094 transmittal in the transmission.

Every Form 1094 in a transmission can be uniquely identified by the XML element *UniqueSubmissionId* which is derived by concatenating the transmission Receipt ID generated by IRS with the Form 1094 Submission ID. For example, given the referenced Receipt ID below and a transmission from a Transmitter or Issuer that included 3 submissions, Forms 1094-B would be uniquely identified as follows:

**Table 6-2: Unique Submission Identifier**

Form 1094-B Transmittal <i>SubmissionId</i>	Form 1094-B Transmittal <i>UniqueSubmissionId</i>
1	<b>1094B-19-00000283 1</b>
2	<b>1094B-19-00000283 2</b>
3	<b>1094B-19-00000283 3</b>

### 6.3.2 Uniquely Identifying Forms 1095 within a Transmission

Form 1095 records within a submission are identified in the XML schema (both for Form 1095-B and for Form 1095-C) by the XML element *RecordId* within the respective *Form1095BUpstreamDetailType* or *Form1095CUpstreamDetailType* eFile Type. The XML Schema snippet for Form 1095-C that includes the *RecordId* follows:

```
<xsd:complexType name="Form1095BUpstreamDetailType">
  <xsd:annotation>
    <xsd:documentation>
      <Component>
        <DictionaryEntryNm>Form 1095-B Upstream Detail Type</DictionaryEntryNm>
        <MajorVersionNum>1</MajorVersionNum>
        <MinorVersionNum>0</MinorVersionNum>
        <VersionEffectiveBeginDt>2015-01-27</VersionEffectiveBeginDt>
        <VersionDescriptionTxt>Initial version</VersionDescriptionTxt>
        <DescriptionTxt>Form 1095-B - Health Coverage Information Return</DescriptionTxt>
      </Component>
    </xsd:documentation>
  </xsd:annotation>
  <xsd:sequence>
    <xsd:element ref="RecordId"/>
    <xsd:element ref="TestScenarioId" minOccurs="0"/>
    <xsd:element ref="CorrectedInd"/>
    <xsd:element ref="CorrectedRecordRecipientGrp" minOccurs="0"/>
    <xsd:element ref="TaxYr" minOccurs="1" maxOccurs="1"/>
    <xsd:element ref="ResponsibleIndividualGrp" minOccurs="0"/>
    <xsd:element ref="SponsoringEmployerInfoGrp" minOccurs="0"/>
    <xsd:element ref="IssuerInfoGrp" minOccurs="1" maxOccurs="1"/>
    <xsd:element ref="CoveredIndividualGrp" minOccurs="1" maxOccurs="99"/>
  </xsd:sequence>
  <xsd:attribute name="recordType" type="xsd:string" use="required"/>
  <xsd:attribute name="lineNum" type="xsd:integer" use="required"/>
  <!-- recordType and lineNum is a COTS Mandatory Element-->
</xsd:complexType>
```

Figure 6-6: Form 1094-C XML Schema Including RecordId

The *RecordIdType* eFile Type is defined in the XML Schema as a string type. The Record ID cannot be less than 1 (one) and cannot include fractions or decimal values. The Record ID must be not be duplicated within a submission. IRS recommends that the Record ID start at 1 for the first Form 1095 within the submission and increment by 1 for every subsequent Form 1095 in the submission.

Every Form 1095 record in a submission can be uniquely identified by the XML element *UniqueRecordId* which is derived by concatenating the transmission Receipt ID, the Form 1094 Submission ID, and the Form 1095 Record ID. For example, given the above referenced Receipt ID and a transmission from a Transmitter or Issuer that included 2 submissions with a variable number of records in each submission, Forms 1095-B would be uniquely identified as follows:

**Table 6-3: Unique Record Identifier**

<b>Form 1094-B Transmittal SubmissionId</b>	<b>Form 1095-B RecordId</b>	<b>Unique Identifiers <i>UniqueSubmissionId</i> or <i>UniqueRecordId</i></b>
1		1094B-19-00000283 1
	1	1094B-19-00000283 1 1
	2	1094B-19-00000283 1 2
2		1094B-19-00000283 2
	1	1094B-19-00000283 2 1
	2	1094B-19-00000283 2 2
	3	1094B-19-00000283 2 3

## 6.4 Identifying Records with Errors

When IRS records an error while processing a record, the unique identifiers described in Section 3.4.2 are used to inform the transmitter where the error occurred. Those errors are written to a file named the Error Data File. The Error Data File is attached (MTOM encoded attachment) to the SOAP Response message when the transmitter requests the status and processing detail (Acknowledgement) for the given transmission. Note: The Error Data File is returned for transmissions processed in the AATS and Production environment.

The content of the Error Data File can be found in the root element */RS-ACABulkRequestTransmitterStatusDetailMessage.xsd* found in the MSG folder. The *ACABulkRequestTransmitterStatusDetailResponseType* eFile Type includes a single optional and unbounded XML element *TransmitterErrorDetailGrp*. The error information for each record is contained within this complex element:

**Table 6-4: Error Data File Contents**

<b>Schema Constraints</b>	<b>XML Element</b>	<b>Description</b>
Choice Elements – the applicable identifier will be included	<i>UniqueSubmissionId</i>	The unique identifier indicating which Form 1094 has errors
	<i>UniqueRecordId</i>	The unique identifier indicating which Form 1095 has errors

Schema Constraints	XML Element	Description
	<i>SchemaErrorInfo</i>	For informational purposes only—error information about schema
	<i>ErrorMessageDetail</i>	<ul style="list-style-type: none"> <li>• Error message code</li> <li>• Error message description</li> <li>• Pointer to the element (and instance if applicable)</li> </ul>

When the transmitter receives the Receipt ID for a transmission, that Receipt ID must be protected from loss or deletion and maintained with the transmission. The transmitter will have all of the information required to uniquely identify records in a transmission (the Receipt ID, the Submission IDs on Forms 1094, and the Record IDs on Forms 1095), in the event an error is detected by the transmitter or the responsible filing entity (Issuer, Employer). If errors are identified by the transmitter or filing entity, and the record has been submitted and accepted by IRS, the transmitter must use the same unique identifiers to determine the record that needs to be corrected.

## 6.5 Corrections and Replacements

### 6.5.1 The Correction Process

**Corrections can only be made to previous transmissions that have been “Accepted, Accepted with Errors or Partially Accepted”.** Transmitters should file corrections with IRS as soon as possible and furnish a copy of the corrected return to the Recipient. Transmissions containing correction records must only contain corrections and should not include any “Original” records. Corrections may be filed for the following form types:

- Form 1095-B
- Form 1094-C, Authoritative Transmittals only
- Form 1095-C
- **Note:** Although both the Form 1094-B and Form 1094-C are transmittal forms, the Form 1094-B is purely a transmittal document and, therefore, does not require corrections. The Form 1094-C, Authoritative Transmittal, contains additional information that may need correcting. The Form 1094-C must be submitted alone when a correction to the Form 1094-C, Authoritative Transmittal, itself is required. Otherwise, the Form 1094-C must be submitted with one or more “corrected” Forms 1095-C.

The correction process can be utilized when:

- IRS notifies the Transmitter or Issuer of one or more errors on the transmittal (Form 1094-C Authoritative Transmittal) or information returns (Forms 1095-B or Forms 1095-C) filed.
- The Transmitter or Issuer identifies one or more errors on the transmittal (Form 1094-C Authoritative Transmittal) or information returns (Forms 1095-B or Forms 1095-C) filed.
- The Employee or Covered Individual reports an error

The unique identifiers assigned by AIR allow corrections to the specific record(s), both transmittal records (Forms 1094) and information return records (Forms 1095) defined above in Section 3.

See the example and figure below illustrating multiple corrections to a single record. For example, the Form 1094 data located in submission 10 of a transmission would have a USID as follows:

**USID= 1094B-PY-00700283|10**

The Form 1095 data located in record 2 of submission 10 of a transmission would have a URID as follows:

**URID= 1094B-PY-00700283|10|2**

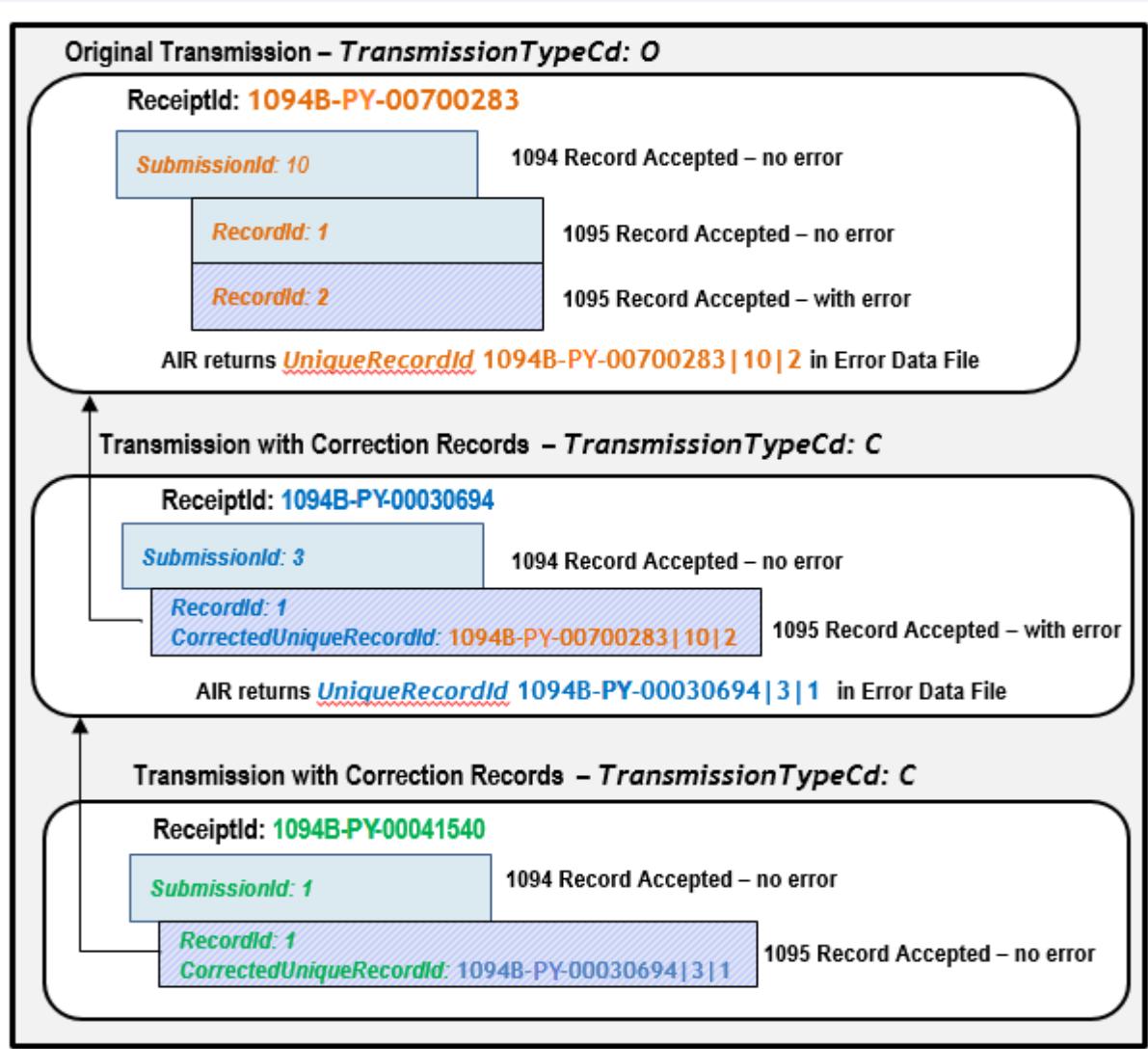


Figure 6-7: Reference Records to be Corrected

## 6.5.2 Transmitting Corrections

### Guidelines for transmitting corrections:

- Do not submit original and corrected documents in the same file

- If the transmission is identified as containing corrections in the Manifest (*TransmissionTypeCd* is 'C'), then the "*CorrectedInd*" in the Form Data File has to be set to "1" and must include either the "*CorrectedUniqueSubmissionId*" (if the correction is for Form 1094-C) or the "*CorrectedUniqueRecordId*" (if the correction is for Form 1095) which references the record that is being corrected
- If a Correction is found to be in error and needs to be corrected, submit a Correction to the most recently accepted Correction –**File only one Correction per Unique Submission ID when correcting a Form 1094-C Authoritative Transmittal or Unique Record ID when correcting a Form 1095**
- Correction records will carry both a "Record ID" to uniquely identify the correcting record, as well as the Unique ID of the 1094-C or 1095 Record to be corrected
  - For Form 1094-Cs use "*SubmissionId*" and "*CorrectedUniqueSubmissionId*"
  - For Form 1095-Bs and Cs use "*RecordId*" and "*CorrectedUniqueRecordId*"
- Always include the complete record for Correction; do not supply only the Corrected data elements within the correcting record. The choice between *CorrectedRecRecipientPrsnName* and *CorrectedRecRecipientName* from the record that is being corrected
- When the transmission is Accepted with Errors and the only errors identified are Manifest errors with a severity of "Report Error", these errors cannot be corrected and the messages are for informational purposes only

### 6.5.3 Transmitting Form 1094-C Corrections (Authoritative Transmittals Only)

If an original transmission requires corrections to the Form 1094-C Authoritative Transmittal, include the following (see schema and business rules):

- Populate the Form 1094-C "***CorrectedInd***" with "1"
- A "***UniqueTransmissionId***" for the transmission
- A "***TransmissionTypeCd***" in the Manifest should be "C" for corrections
- A "***SubmissionId***" (SID) for the correction Transmittal record
- The "***CorrectedUniqueSubmissionId***" (CUSID) identifying the record that is being corrected
- A "***CorrectedSubmissionPayerName***" this is the Payer Business Name from the submission (1094-C) being corrected
- The "***CorrectedSubmissionPayerTIN***" this is Payer Taxpayer Identification Number (EIN) from the submission (1094-C) being corrected

Examples of key data fields from the original record to be corrected are the Name of ALE Member (Employer) and the Employer Identification Number (EIN). **Note:** These fields are necessary to allow IRS to associate the correction record to the original record even when the Unique ID's don't match. Do **not** attach any Forms 1095-C.

**Note:** "Please remember to mark the Corrected Form 1094-C as an "Authoritative Transmittal" and to complete the entire record Parts I, II, III and if applicable Part IV (not just the Name and EIN)."

When correcting Form 1094-C Authoritative Transmittal entity data that also appears on associated Forms 1095-C (Name and EIN), it is not necessary to submit changes to every

associated Form 1095-C in order to correct that information on the Forms 1095-C. IRS internal systems will associate appropriate entity information to existing Form 1095-C records.

### 6.5.4 Transmitting Forms 1095-B or 1095-C Corrections

If an original transmission requires corrections to the Forms 1095-B and 1095-C, include the following (see schema and business rules):

- Populate the Form 1095-B or 1095-C “**CorrectedInd**” with “1”. **Note:** The “**CorrectedInd**” in the Form 1094-C should be “0”. The Form 1094-B is purely a transmittal document and, therefore, does not have a “**CorrectedInd**”.
- A “**UniqueTransmissionId**” for the transmission
- “**TransmissionTypeCd**” in the Manifest should be “C” for corrections
- A “**SubmissionId**” for the Transmittal (Form 1094) record
- A “**RecordId**” of the correction record
- The “**CorrectedUniqueRecordId**” (**CURID**) identifying the record that is being corrected
- Include the other required fields in the “**CorrectedRecordRecipientGrp**”

Elements in the **CorrectedRecordRecipientGrp** include Recipient Name, TIN from the original record to be corrected is optional.

- For a Form 1095-B provide the Business or Individual name
- For a Form 1095-C provide the Employee name

**Note:** These fields are necessary to allow IRS to associate the correction record to the original record even when the Unique ID's don't match.

### 6.5.5 Transmitting Forms 1094-C and Forms 1095-C Corrections

If an original transmission requires corrections to **both** the Forms 1094-C Authoritative Transmittal and 1095-C, please file two separate transmissions.

- The **first** transmission will be to correct the Form 1094-C Authoritative Transmittal only, by following the Form 1094-C Authoritative Transmittal Correction Process outlined above.
- The **second** transmission will be to correct the Form 1095-C by following the Form 1095-C Correction Process outlined above. Only complete the accompanying Form 1094-C through the element “**Form1095CAttachedCnt**” (Line 18). **Please note:** The element “**AuthoritativeTransmittalInd**” (Line 19 and Parts II, III and IV of the Form 1094 C, should **not** be completed.

If, after submitting a correction, IRS identifies a subsequent error, or if the Transmitter identifies a subsequent error, **you must utilize the Unique IDs associated with the correction**. See Figure 7-1 above.

**Note:** The original record may only be corrected once.

## 6.6 Rejected Transmissions

Transmissions can be “Rejected” by both the Portal and AIR. However, the replacement process only applies to Transmissions or Submissions rejected by AIR.

## 6.6.1 Transmissions Rejected by IRS Portal

When a transmission is rejected by IRS Portal, the Transmitter will receive a fault (error) code that is prefixed with 'TPE'. The corresponding error description message will contain information about the errors that were detected. The table of fault codes produced by IRS Portal is included in Section 12.1 of this document.

When a transmission is rejected by IRS Portal, the Transmitter must fix the problem that caused the rejection and resend the transmission. In the case where the message size is too large, the Transmitter must reduce the number of records in the Form Data File before resending the transmission.

**Note:** Use the same “*TransmissionTypeCd*” that was used when the transmission was rejected by the Portal to resubmit the file.

**Note: Use the same “*TransmissionTypeCd*” that was used when the transmission was rejected by the Portal to resubmit the file.**

## 6.6.2 Transmissions/Submissions Rejected by AIR

When AIR rejects the transmission due to malformed schema, missing required element or a pattern mismatch, the Error Code returned to the Transmitter will be prefixed with 'AIRSH'. Business rule validation provides Submission level rejections, along with Transmission level rejections. None of the records included in a transmission/submission that are rejected are maintained in IRS data stores. Thus, when a transmission or submission is rejected by AIR, a replacement transmission or submission must be submitted.

The following are reasons for a rejection at the Transmission level or Submission level (Forms 1094/1095-B and 1094/1095-C);

A complete Transmission can be rejected due to:

- A fatal error identified while processing the transmission metadata
- Schema validation failed on the malformed schema and schema definition
- Business rule failures at the transmission level (ex: Manifest error, Incorrect Submission ID in Form Data File)
- All Submissions within the transmission are rejected

**Note:** The above situation requires the Transmitters to replace the entire Transmission.

The following are reasons for rejection at the Submission Level:

A Transmission can be Partially Accepted when one or more submissions, but not all, are rejected.

A Submission can be rejected due to:

- Schema validation failed on the Form Data XML File
- Business Rule Failures (ex: Form 1094 Incorrect or Missing Tax Year), which will lead to that Submission rejection (Form 1094 and its corresponding 1095 Forms).

**Note:** The above situation requires the Transmitters to replace only the rejected Submission(s).

## 6.7 Replacement Process - Transmitting Replacements

A replacement transmission must contain all the records submitted to IRS for processing in the rejected Transmission or Submission that is being replaced. **Transmitters should submit an acceptable replacement transmission no later than 60 days after the date the rejected status of the original transmission was available.** The 60-day adjustment applies whether-or-not, the original transmission was received before or after the ACA Information Returns due date. When an acceptable replacement transmission is received within 60 days from the date the status was available, the file will be treated as filed on the original transmission received date. If an acceptable replacement transmission is received after the 60 days, the file will be treated as filed on the date the replacement transmission is received. In this way, any applicable late-filing penalty is calculated based on the date the transmission was received.

**Note:** “Transmitters should wait until a transmission is processed and the Acknowledgement File status is either 'Rejected' or 'Partially Accepted' by IRS before submitting a replacement transmission or submission.”

Transmitters can replace rejected Transmissions, as well as rejected Submissions. Replacements can only be transmitted for previously rejected Transmissions or Submissions. AIR requires replacements to use specific identifiers to reference the original rejected transmission/submission. When replacing a transmission, the Manifest XML Schema includes an element “*OriginalReceiptId*” which references the Receipt ID of the original transmission that is being replaced.

When replacing a submission, the Form Data File element “*OriginalUniqueSubmissionId*” is used to reference the Submission ID of the original submission that is being replaced. **When submissions are replaced, the Manifest data element “*OriginalReceiptId*” is not used.**

Only transmissions that contained original records (*TransmissionTypeCd* is ‘O’) that were rejected require a replacement transmission. When a transmission, containing original records, is rejected (*TransmissionTypeCd* is ‘O’), the Transmitter must fix the problem that caused the rejection and resend the transmission as a replacement (*TransmissionTypeCd* is ‘R’).

However, if a transmission containing correction records is rejected (*TransmissionTypeCd* is ‘C’), the Transmitter must fix the problem that caused the rejection and resend the transmission (*TransmissionTypeCd* remains ‘C’).

An individual original submission within a transmission can be rejected by IRS in a Partially Accepted transmission. The original submission should be fixed and retransmitted in a replacement transmission (*TransmissionTypeCd* is “R”).

### 6.7.1 Replacement Transmission

Replacement transmissions must include the following requirements (see schema and business rules for additional details):

- A “***UniqueTransmissionId***” for the replacement transmission
- “***TransmissionTypeCd***” in the Manifest should be “R” for replacement
- Include the “***OriginalReceiptId***” data element in the Manifest identifying the original transmission that is being replaced
- ACA Business Correlation ID (***UniqueTransmissionId***) in the Manifest should be unique for each transmission (UUID which is part of UTID will be checked for uniqueness against that TCC).
- ***DocumentSystemFileNm*** in the Manifest should match the name of the Form Data File
- ***ChecksumAugmentationNum*** in the Manifest should be unique for each transmission

- Replacement transmission should not include any additional replacing/new submissions

**Do not**

- Include the “**OriginalUniqueSubmissionId**” in the Form Data File

### 6.7.1.1 Replacing an Original Transmission that Rejected

If the original Transmission was “Rejected”, then replace the entire Transmission by using the Receipt ID from the Rejected Transmission to populate the Manifest Data element ‘*OriginalReceiptId*’ of the Replacement Transmission.

Replacement transmissions must include the following requirements (see schema and business rules for additional details):

- A “**UniqueTransmissionId**” for the replacement transmission (ACA Business Correlation ID (*UniqueTransmissionId*) in the Manifest should be unique for each transmission (UUID which is part of UTID will be checked for uniqueness against that TCC)
- “**TransmissionTypeCd**” in the Manifest should be “R” for replacements
- Include the “**OriginalReceiptId**” data element identifying the original transmission that is being replaced
- **DocumentSystemFileNm** in the Manifest should match the name of the Form Data File
- **ChecksumAugmentationNum** in the Manifest should be unique for each transmission

**Do not:**

- Include any additional or new submissions
- Include the “**OriginalUniqueSubmissionId**” in the Form Data File
- **Try to replace individual submissions within a rejected transmission**
- Try to replace a transmission that was not rejected
- Try to replace a transmission that has been successfully replaced

### 6.7.1.2 Replacing a “Replacement” Transmission that Rejected

If an original Transmission is rejected and the Replacement Transmission is also rejected, then replace the first (Earliest) rejected Transmission in the chain by populating the Manifest Data element ‘*OriginalReceiptId*’ with the Receipt Id that references the EARLIEST rejected Transmission in the chain. Please see Figure 7-2 for an illustration of the earliest rejected Transmission in the chain.

Replacement Transmissions must include the following requirements (see schema and business rules for additional details):

- A “**UniqueTransmissionId**” for the replacement transmission (ACA Business Correlation ID (*UniqueTransmissionId*) in the Manifest should be unique for each transmission (UUID which is part of UTID will be checked for uniqueness against that TCC)
- “**TransmissionTypeCd**” in the Manifest should be “R” for replacements
- Include the “**OriginalReceiptId**” data element identifying the Receipt Id that references the first rejected transmission, which contained a TransmissionTypeCd of “O”, in the chain
- **DocumentSystemFileNm** in the Manifest should match the name of the Form Data File
- **ChecksumAugmentationNum** in the Manifest should be unique for each transmission
- Replacement transmission should not include any additional or new submissions

**Do not:**

- Include the “**OriginalUniqueSubmissionId**” in the Form Data File
- Try to replace a rejected replacement transmission

- Try to replace individual submissions within a rejected transmission
- Try to replace a transmission that was not rejected
- Try to replace a transmission that has been successfully replaced

Figure 6-8 below depicts the replacement process where both the initial transmission and the first replacement attempt were rejected by AIR.

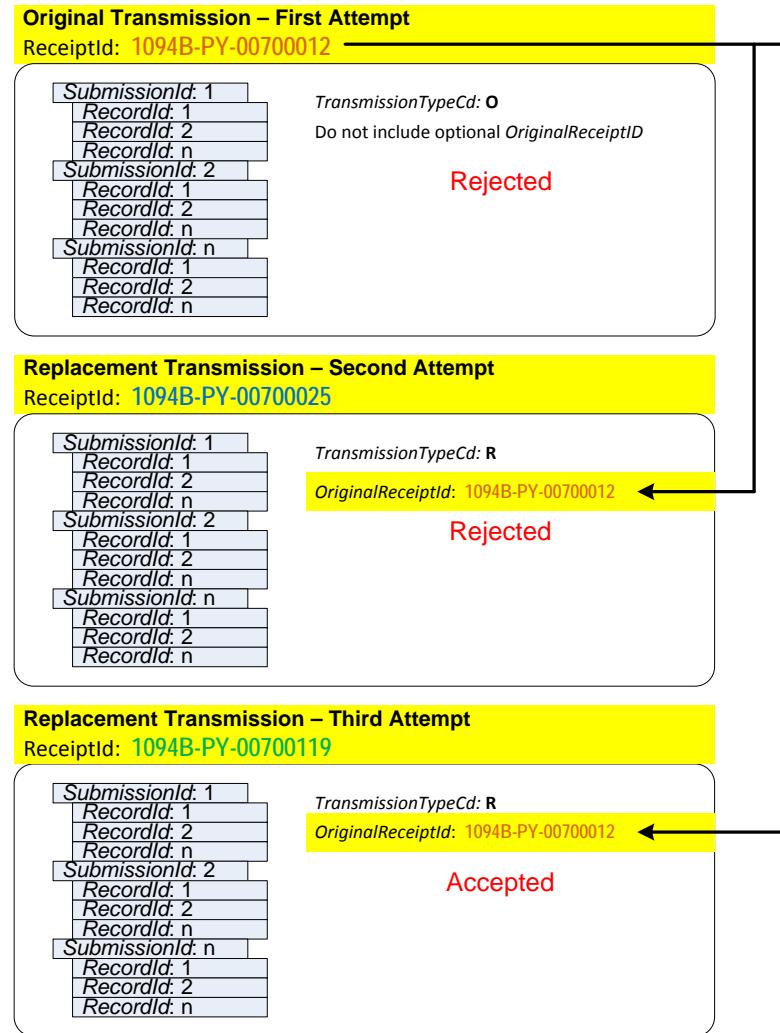


Figure 6-8: Replacing a Rejected Transmission

## 6.7.2 Replacement Submission

Replacement submissions must include the following requirements (see schema and business rules for additional details):

- A “**UniqueTransmissionId**” for the replacement transmission
- “**TransmissionTypeCd**” in the Manifest should be “R” for replacement
- Include the “**OriginalUniqueSubmissionId**” in the Form Data File identifying the submission that is being replaced
- **Duplicate replacement Submission (s) included within the same transmission will be rejected.**
- **Replacement transmission should not include any new submissions**

**Do not**

- Include the “*OriginalReceiptId*” data element in the Manifest

### **6.7.2.1 Replacing Submission Within a Partially-Accepted Transmission**

If the Original Transmission was Partially-Accepted, then replace the individual Submission(s) that were rejected by populating the data element “*OriginalUniqueSubmissionId*” in each replacement Submission (Form 1094) with the “*UniqueSubmissionId*” from the Submission Header of the rejected Submission(s). When filing replacement Submission(s) for submissions that were rejected within a Partially Accepted Transmission, adhere to the following requirements (see schema and business rules for additional details):

- A “**UniqueTransmissionId**” for the replacement transmission
- “**TransmissionTypeCd**” in the Manifest should be “R” for replacement
- Include the “*OriginalUniqueSubmissionId*” in the Form Data File identifying the submission that is being replaced from the original Partially Accepted transmission
- **Duplicate replacement Submission ID(s) included within the same transmission will be rejected.**
- **Replacement transmission should not include any new submissions**

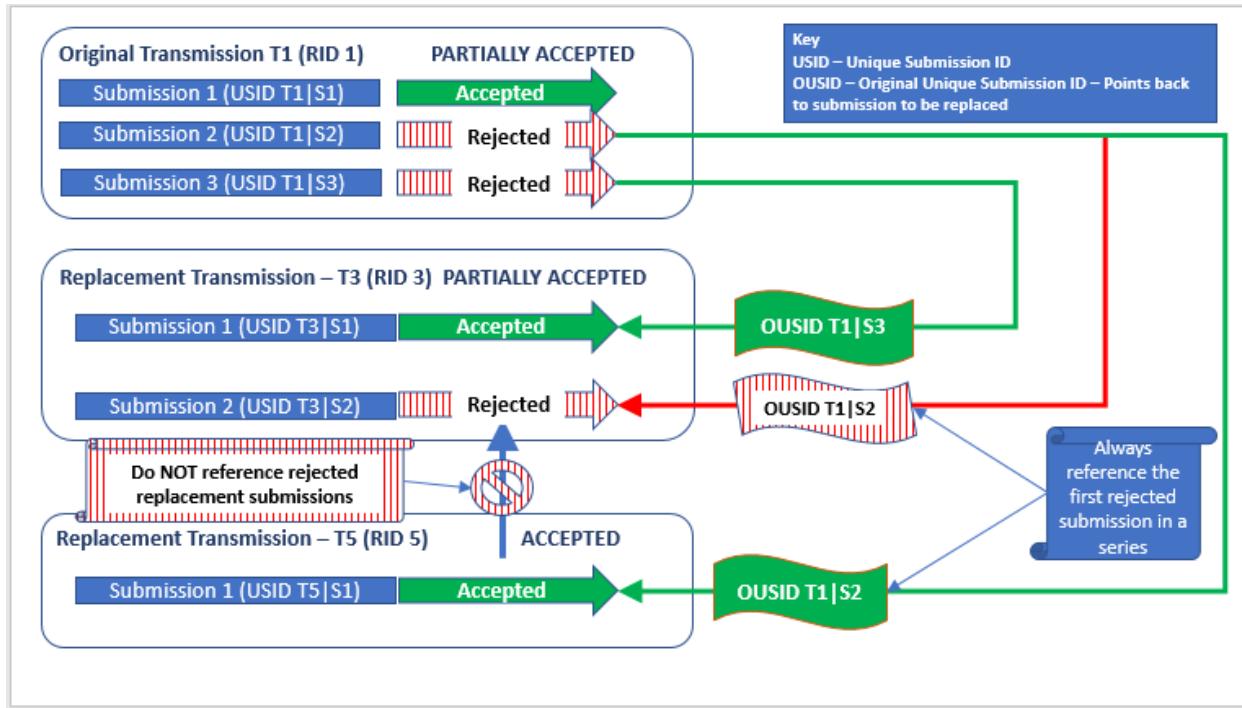
**Do not**

- Include the “*OriginalReceiptId*” data element in the Manifest
- Submit a submission-level replacement for a transmission that was rejected

### **6.7.2.2 Replacing Submission from a PartiallyAccepted Original Transmission when the Replacements Transmission or Submission was Rejected**

If the original Transmission is Partially Accepted, and the Transmission with the replacement submissions is Rejected or Partially Accepted, then transmit another replacement transmission using the Submission IDs from the original rejected submissions. In either case always replace the first rejected submission in the chain of rejected submissions when one or more replacements are rejected. Please refer to Figures 6-9 and 6-9A.

**Please note:** First rejected Submission(s) in the chain rejections does not relate to the order of submissions within an individual Transmission. Figure 6-9 depicts the Submission-Replacement process where a replacement Submission was rejected.



**Figure 6-9: Visual depicting the first-rejected submission in a chain of rejections that should be replaced**

Figure 6-9A illustrates a similar situation when the entire replacement transmission was rejected

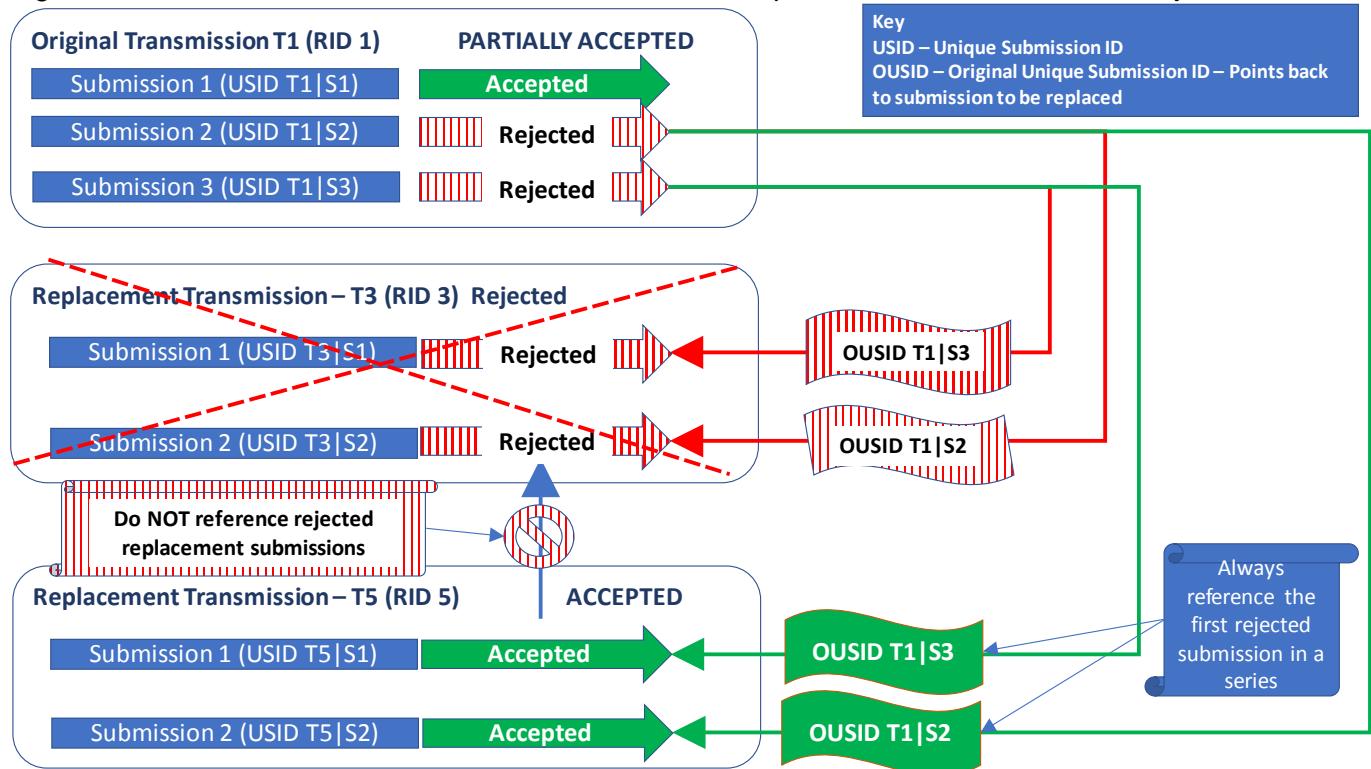


Figure 6-9A: Visual showing the first-rejected submission should be replaced when the replacement transmission is rejected

If filing a replacement Submission from a Partially Accepted Transmission where the replacement was rejected, adhere to the following requirements (see schema and business rules for additional details):

- A “**UniqueTransmissionId**” for the replacement transmission
- “**TransmissionTypeCd**” in the Manifest should be “R” for replacement
- Include the “**OriginalUniqueSubmissionId**” in each replacement submission header Form data file with the Unique Submission ID from the header within the earliest rejected Submission in a sequence within a Partially Accepted Transmission that is being replaced (refer to Figures 7-3 and 7-3A)
- **Duplicate replacement Submission ID(s) included within the same transmission will be rejected.**
- **Replacement transmission should not include any new submissions**

#### Do not

- Include the “**OriginalReceiptId**” data element in the Manifest
- Replace a submission within a Submission Replacement Transmission that was rejected

## **7 Data Mapping for ISS-UI Services/ISS-A2A Web Services**

---

This section provides mapping of the request and the response information exchanged between the transmitter and IRS. The mapping feeds into the request and response XML schemas for the messages. Both the request and the response schemas are incorporated into the ACA XML library.

The data mapping that follows is structured according to the asynchronous business process as follows:

- The transmitter sends a transmission with a Form Data File to IRS and receives a Receipt ID from IRS in a single synchronous session. In the ISS-A2A Channel, the synchronous session is comprised of the transmitter sending a SOAP Request message with a transmission to IRS and receiving a SOAP Response message with the Receipt ID. In the ISS-UI Channel, the synchronous session is comprised of the transmitter logging on to IRS, uploading the Transmission Data File containing information pertaining to the transmitter and the transmission, uploading the Form Data File, submitting the transmission and receiving the Receipt ID at their Web Browser.
- The transmitter sends a message with the Receipt ID associated with the transmission and receives the status and, if applicable, error detail. In the ISS-A2A Channel, the synchronous session is comprised of the transmitter sending a SOAP Request message with the Receipt ID pertaining to the transmission for which they are requesting status and receiving a SOAP Response message with the status (one of Accepted, Accepted with Errors, Partially Accepted, Rejected, Processing, Not Found) and, if errors were found during processing, the Error Data File containing the details of the errors. In the ISS-UI Channel, the synchronous session is comprised of the transmitter logging on to IRS, entering the Receipt ID and their TCC via a Web Browser and receiving the status via a web page and the capability to browse or download the Error Data File if errors were found during processing.

This section identifies the boundary data exchanged between the transmitter and IRS for the following transactions:

- **Transmitting the Form Data File and receiving the response**
- **Requesting the Acknowledgement and receiving the response**

This section also identifies the business data sent to IRS by a transmitter. The business data is sent to IRS in the Form Data File containing Forms 1094/1095-B and Forms 1094/1095-C XML elements.

### **7.1 Data Mapping – Message Data Boundary**

Tables 7-1 through 7-3 provide the data element definitions relevant to the transmission SOAP Request and SOAP Response messages.

Tables 7-4 through 7-6 provide the data element definitions relevant to the Acknowledgement request SOAP Request and SOAP Response messages.

**Table 7-1: Form 1094-1095 B and C Transmission SOAP Request Header – ACA Business Header**

ACABusinessHeader	Definition	XML Element Name
Unique Transmission Id	Unique Transmission Id	UniqueTransmissionId
Time stamp	Time stamp	Timestamp

**Table 7-2: Form 1094-1095 B and C Transmission SOAP Request Manifest Header**

ACATransmitterManifestReqDtl	Definition	XML Element Name
Payment Yr	Tax year of the filing	PaymentYr
Prior Year Data Ind	Prior Filing year Indicator	PriorYearDataInd
Employer Identification Number (EIN)	Transmitter's nine digit EIN	EIN
Transmission Type Cd	Transmission Type Indicates whether Transmission has Original (O), Replacement (R), Corrected (C)	TransmissionTypeCd
Test File Ind	Test File Indicator	TestFileCd – 'T' to be used only in AATS 'P' to be used only in PROD
Original Receipt ID	Original Receipt Identifier of the Transmission being replaced	OriginalReceiptId - <i>(optional)</i>
Transmitter Foreign Entity Ind	Transmitter Foreign Entity Indicator	TransmitterForeignEntityInd - <i>(optional)</i>
Transmitter Name Grp	Global type for name of the transmitter.	TransmitterNameGrp PersonFirstNm PersonMiddleNm - <i>(optional)</i> PersonLastNm SuffixNm - <i>(optional)</i>
Company Information Grp	Global type for the Company (Transmitter) Information. <i>*USAAddressGrpType and ForeignAddressGrpType are choice elements.</i>	CountryNm MailingAddressGrp USAAddressGrp AddressLine1Txt AddressLine2Txt CityNm

ACATransmitterManifestReqDtl	Definition	XML Element Name
		USStateCd USZIPCd USZIPExtensionCd Or ForeignAddressGrp AddressLine1Txt AddressLine2Txt CityNm CountryCd – OR CountryNm ForeignProvinceNm ForeignPostalCd ContactNameGrp PersonFirstNm PersonMiddleNm -(optional) PersonLastNm SuffixNm-(optional) ContactPhoneNum
Vendor Information Grp	Global type for the vendor information	VendorInformationGrp VendorCd ContactNameGrp (Person) ContactPhoneNum
Total Payee Record Cnt	The Total Number of Payees count	TotalPayeeRecordCnt
Total Payer Record Cnt	The Total Number of Payer Records count	TotalPayerRecordCnt
Software Id	An identification number assigned by IRS to a software	SoftwareId
Form Type Cd	Form Type 1094-1095B/C	FormTypeCd
Binary Format Cd	An identifier for a file format of content type of a binary object. Extensible Markup Language (XML) is the only accepted type at	BinaryFormatCd

ACATransmitterManifestReqDtl	Definition	XML Element Name
	this time	
Checksum Augmentation Num	An SHA-256 Checksum value (64 characters) provided by Requestors and IRS verify the size of file received is the same as the size transmitted	ChecksumAugmentationNum
Attachment Byte Size Num	A size of a binary object (attachment) in bytes	AttachmentByteSizeNum
Document System File Nm	The filename of a document in a file system	DocumentSystemFileName

**Table 7-3: Form 1094-1095 B and C Transmission SOAP Response**

ACABusinessHeader	Definition	XML Element Name
UniqueTransmissionId	Unique Transmission ID	UniqueTransmissionId
Timestamp	Base type for a date and time stamp – Time zone portion is required and fractional seconds are prohibited	Timestamp
<b>ACABulkRequestTransmitterResponse</b>		
Transmission Status Code	<i>The current known status of the transmission (Processing, Accepted, Accepted with Errors, Partially Accepted or Rejected)</i>	TransmissionStatusCd
Receipt Id	A unique receipt identifier	ReceiptId
Error Message Detail	<i>Global type for the Error Message Detail *Error code/error message will always be in XML structure. Error Message Detail will be repeated for each error</i>	ErrorMessageDetail ErrorMessageCd ErrorMessageTxt

**Table 7-4: Form 1094-1095 B and C Acknowledgement SOAP Request to check the Status of the Transmission**

ACABusinessHeader	Definition	XML Element Name
UniqueTransmissionID	Unique Transmission ID	UniqueTransmissionId
Timestamp	Base type for a date and time stamp – Time zone portion is required and fractional seconds are prohibited	Timestamp
<b>ACABulkRequestTransmitterStatusDetailRequest</b>		
Receipt Id	A unique receipt identifier	ReceiptId

**Table 7-5: Form 1094-1095 B and C Transmission SOAP Response Header**

ACABusinessHeader	Definition	XML Element Name
UniqueTransmissionID	Global type for the Unique Transmitter Identifier	UniqueTransmissionId
Timestamp	Base type for a date and time stamp – Time zone portion is required and fractional seconds are prohibited	Timestamp
<b>ACABulkRequestTransmitterResponse</b>		
Transmission Status Code	<i>Current state of transmission processing (Processing, Accepted, Accepted with Errors, Partially Accepted or Rejected)</i>	TransmissionStatusCd
Receipt Id	A unique receipt identifier	ReceiptId

**Table 7-6: Form 1094-1095 B and C Transmission SOAP Request Header – ACA Business Header**

TransmitterErrorDetailGrp	Definition	XML Element Name
Unique Submission Id	Unique Submission Identifier	UniqueSubmissionId
Error Message Detail	Global type for the Error Message Detail	ErrorMessageDetail ErrorMessageCd

TransmitterErrorDetailGrp	Definition	XML Element Name
	<i>*Error code/error message will always be in XML structure. Error Message Detail will be repeated for each error</i>	ErrorMessageTxt XpathContent

## 7.2 Data Mapping – Form Data Boundary

Tables 7-7 and 7-8 provide the data element definitions relevant to Issuer Reporting. Issuers include health insurance issuer, sponsor of a self-insured health plan, government agency that administers government-sponsored health insurance programs. The Form Line Numbers are taken from the Form 1094-B and Form 1095-Bs.

Tables 7-9 and 7-10 provide the data element definitions relevant to Employer Reporting. Employers include Applicable Large Employers (ALE). The Form Line Numbers are taken from the Form 1094-C and Form 1095-C forms.

**Table 7-7: Form 1094-B**

Form Line Num	1094-B Data Element	Definition	XML Element Name
None	Tax Year	Tax Year being filed for	TaxYr
None		Unique submission number	SubmissionId
None		Original Unique Submission ID	OriginalUniqueSubmissionId
None		Test Scenario ID	TestScenarioid
None	TIN Request Type code	TIN Request type code	TINRequestTypeCd
1	Filer's name	Filer's complete Name	BusinessName BusinessNameLine1Txt BusinessNameLine2Txt
2	Employer Identification Number (EIN)	The filer's nine digit EIN.	EmployerEIN
3	Name of person to contact	The name of the person to contact who is responsible for answering any questions.	ContactNameGrp PersonFirstNm PersonMiddleNm PersonLastNm SuffixNm
4	Contact telephone number	Phone number of contact person	ContactPhoneNum
5	Street Address (including room or suite no.)	The filer's complete address where all correspondence will be sent.	MailingAddressGrp USAddressGrp AddressLine1Txt AddressLine2Txt

Form Line Num	1094-B Data Element	Definition	XML Element Name
6	City or town	IRS XML schema provides a choice between using US Address or Foreign Address. Differences are noted in individual fields on the right. If TransmitterForeignEntityInd is true then ForeignAddressGrp will be used.	CityNm USStateCd USZIPCd USZIPExtensionCd Or ForeignAddressGrp AddressLine1Txt AddressLine2Txt CityNm CountryCd - OR
7	State or Province		
8	Country and ZIP or Foreign Postal Code	Choice between CountryCd and CountryNm	CountryNm ForeignProvinceNm ForeignPostalCd
9	Total number of Forms 1095-B submitted with this transmittal	The total number of Forms 1095-B that are transmitted with this Form 1094-B.	Form1095BAttachedCnt
None	Signature	Jurat Signature PIN*	JuratSignaturePIN
None	Title	Person Title*	PersonTitleTxt
None	Date	Signature Date	SignatureDt

\* Please note that Signature and Title are not required for Form 1094C

**Table 7-8: Form 1095-B**

Form Line Num	1095-B Data Element	Definition	XML Element Name
None		Unique Record ID	RecordId
None		Test Scenario ID	TestScenarioId
None	TIN Request Type Code	TIN Request Type Code	ResponsibleIndividualGrp TINRequestTypeCd
	Person Name Control Type	Person Name Control Type	ResponsibleIndividualGrp PersonNameControlTxt
	Business Name Control Type	Business Name Control Type	ResponsibleIndividualGrp BusinessNameControlTxt
None	TIN Request Type Code	TIN Request Type Code	SponsoringEmployerInfoGrp

Form Line Num	1095-B Data Element	Definition	XML Element Name
			TINRequestTypeCd
None	TIN Request Type Code	TIN Request Type Code	CoveredIndividualGrp TINRequestTypeCd
None	TIN Request Type Code	TIN Request Type Code	SponsoringEmployerInfoGrp TINRequestTypeCd
None	TIN Request Type Code	TIN Request Type Code	IssuerInfoGrp TINRequestTypeCd
None	Corrected	Identifies the Information Return as containing corrections to the previously transmitted 1095-B.	CorrectedInd
None	CorrectedRecordRecipientGrp	Information to identify the record being corrected	CorrectedRecordRecipientGrp CorrectedUniqueRecordId Choice between: CorrectedRecRecipientPrsnNameCorrected RecRecipientName  CorrectedRecRecipientTIN
None	Tax Year	Identifies the tax year that the forms are being filed for	TaxYr
<b>Part I Responsible Individual</b>		Responsible Individual Grp	
1	Name of Responsible Individual	The name of the responsible individual	<p><b>Choice between</b></p> <p>ResponsibleIndividualName PersonFirstNm PersonMiddleNm PersonLastNm SuffixNm</p> <p><b>And</b></p> <p>ResponsibleBusinessName BusinessNameLine1Txt BusinessNameLine2Txt</p>

Form Line Num	1095-B Data Element	Definition	XML Element Name
2	Employer Covered Individual	Number used to identify the taxpayer. Either an SSN, EIN, ATIN, IRSN or ITIN And The responsible individual's date of birth – only if Line 2 is blank	Choice between SSN BirthDt
3	Street Address (Including Apartment no.)	The complete mailing address of the responsible individual.	MailingAddressGrp USAddressGrp AddressLine1Txt AddressLine2Txt CityNm USStateCd USZIPCd USZIPExtensionCd
4	City or Town	IRS XML schema provides a choice between using US Address or Foreign Address.	Or ForeignAddressGrp AddressLine1Txt AddressLine2Txt CityNm CountryCd - OR CountryNm
5	State or province		ForeignProvinceNm ForeignPostalCd
6	Country and ZIP or Foreign Postal Code	Differences are noted in individual fields on the right. If TransmitterForeignEntityInd is true then ForeignAddressGrp will be used Choice between CountryCd and CountryNm.	
7	Enter letter identifying Health Coverage Origin Code (see instructions for codes)	The letter identifying the origin of the policy: A. SHOP B. Employer-sponsored program C. Gov't-sponsored program D. Individual market insurance E. Multiemployer	HealthCoverageOriginCd

Form Line Num	1095-B Data Element	Definition	XML Element Name	
		plan F. Miscellaneous MEC		
8				
<b>Part II- Information about Certain Employer-Sponsored Coverage</b>				
		SponsoringEmployerInfoGrp		
9	Employer Name	Name of the provider of the coverage.	BusinessName BusinessNameLine1Txt BusinessNameLine2Txt	
10	Employer Identification number (EIN)	The nine digits EIN of the provider of the coverage.	EIN	
11	Street Address (Including room or suite no.)	The telephone number, including area code, of the provider of the coverage.		
12	City or Town	The complete mailing address of the provider of the coverage.	MailingAddressGrp USAddressGrp AddressLine1Txt AddressLine2Txt CityNm USStateCd USZIPCd USZIPExtensionCd Or ForeignAddressGrp AddressLine1Txt AddressLine2Txt CityNm CountryCd - OR CountryNm ForeignProvinceNm ForeignPostalCd	
13	State or province			
14	Country and ZIP or Foreign Postal Code			
<b>Part III Issuer or Other Coverage Provider</b>				
		IssuerInfoGrp		
15		Name of the provider of the	BusinessName BusinessNameLine1Txt	

Form Line Num	1095-B Data Element	Definition	XML Element Name
	Name	coverage.	BusinessNameLine2Txt
16	Employer Identification number (EIN)	The nine digits EIN of the provider of the coverage.	EIN
17	Contact telephone number	The telephone number, including area code, of the provider of the coverage.	ContactPhoneNum
18	Street Address (Including room or suite no.)	The complete mailing address of the provider of the coverage.	MailingAddressGrp USAddressGrp AddressLine1Txt AddressLine2Txt CityNm USStateCd USZIPCd USZIPExtensionCd
19	City or Town	IRS XML schema provides a choice between using US Address or Foreign Address.	Or ForeignAddressGrp AddressLine1Txt AddressLine2Txt CityNm CountryCd - OR CountryNm ForeignProvinceNm ForeignPostalCd
20	State or province		
21	Country and ZIP or Foreign Postal Code	Differences are noted in individual fields on the right. If TransmitterForeignEntityInd is true then ForeignAddressGrp will be used. Choice between CountryCd and CountryNm	

**Part IV Covered Individual (Enter the Information for each covered individual(s))**

CoveredIndividualGrp

23a - 28a	Name of covered individual(s)	Name of each covered individual.	CoveredIndividualName PersonFirstNm PersonMiddleNm PersonLastNm SuffixNm
23b -c - 28b -c	Covered Individual	The nine-digit social security number (SSN) of each covered individual.	Choice between SSN BirthDt

Form Line Num	1095-B Data Element	Definition	XML Element Name
		And  The data of birth of each covered individual – only if SSN is not available	
23d - 28d	Covered All 12 Months	Check box indicating which months the covered individual was covered for at least one day if the covered individual was not covered for at least one day for all 12 months of the calendar year.	Choice between  CoveredIndividualAnnualInd CoveredIndividualMonthlyIndGrp
23e - 28e	Jan		CoveredIndividualMonthlyIndGrp JanuaryInd
23e - 28e	Feb		FebruaryInd
23e - 28e	Mar		MarchInd
23e - 28e	Apr		AprilInd
23e - 28e	May		MayInd
23e - 28e	Jun		JuneInd
23e - 28e	Jul		JulyInd
23e - 28e	Aug		AugustInd
23e - 28e	Sep		SeptemberInd
23e - 28e	Oct		OctoberInd
23e - 28e	Nov		NovemberInd

Form Line Num	1095-B Data Element	Definition	XML Element Name
23e - 28e	Dec		DecemberInd

**Table 7-9: Form 1094-C**

Form Line Num	1094-C Data Element	Definition	XML Element Name
None		Unique Submission Id	SubmissionId
None		Original Unique Submission Id	OriginalUniqueSubmissionId
None		Test Scenario Id	TestScenarioId
None		TIN Request Type Code	TINRequestTypeCd (EmployerInformationGrp)
None		TIN Request Type Code	TINRequestTypeCd (GovtEntityEmployerInfoGrp)
None		TIN Request Type Code	TINRequestTypeCd (OtherALEMembersGrp)
None	Corrected	Indicates if the record is an original (0) or a correction (1) to a record that IRS has already received, processed and accepted.	CorrectedInd
None	Corrected Submission Info Grp	Information to identify the submission (Form 1094-C) being corrected	CorrectedUniqueSubmissionId CorrectedSubmissionPayeeName CorrectedSubmissionPayeeTIN
None	Tax Year	Identifies the tax year that the forms are being filed for	TaxYr

**Part I Applicable Large Employer Member (ALE Member) EmployerInformationGrp**

1	Name of ALE Member (Employer)	The employer's name.	BusinessName BusinessNameLine1Txt BusinessNameLine2Txt
2	Employer identification number (EIN)	The employer's 9-digit EIN	EmployerEIN
3	Street address (including room or suite)	The employer's complete mailing address.	MailingAddressGrp USAddressGrp AddressLine1Txt AddressLine2Txt

Form Line Num	1094-C Data Element	Definition	XML Element Name
	no.)	IRS XML schema provides a choice between using US Address or Foreign Address. Differences are noted in individual fields on the right. If TransmitterForeignEntityInd is true then ForeignAddressGrp will be used.	CityNm USStateCd USZIPCd USZIPExtensionCd Or ForeignAddressGrp AddressLine1Txt AddressLine2Txt CityNm CountryCd - OR CountryNm ForeignProvinceNm ForeignPostalCd
4	City or town		
5	State or province		
6	Country and ZIP or foreign postal code		
7	Name of person to contact	Name of the person to contact who is responsible for answering any questions.	ContactNameGrp PersonFirstNm PersonMiddleNm PersonLastNm SuffixNm
8	Contact telephone number	Contact telephone number, including area code, of the person to contact who is responsible for answering any questions.	ContactPhoneNum
9	Name of Designated Government Entity (only if applicable)	The name of the Designated Government Entity (DGE) if a DGE is filing on behalf of the employer	GovtEntityEmployerInfoGrp BusinessName BusinessNameLine1Txt BusinessNameLine2Txt
10	Employer identification number (EIN)	The DGE's 9-digit EIN	EmployerEIN
11	Street address (including room or suite no.)	The DGE's complete mailing address.	MailingAddressGrp USAddressGrp AddressLine1Txt AddressLine2Txt CityNm USStateCd USZIPCd USZIPExtensionCd Or ForeignAddressGrp AddressLine1Txt AddressLine2Txt CityNm CountryCd - OR CountryNm ForeignProvinceNm
12	City or town		
13	State or province		
14	Country and ZIP or foreign postal code		

Form Line Num	1094-C Data Element	Definition	XML Element Name
			ForeignPostalCd
15	Name of person to contact	Name of the person to contact who is responsible for answering any questions.	ContactNameGrp PersonFirstNm PersonMiddleNm PersonLastNm SuffixNm
16	Contact telephone number	Contact telephone number, including area code, of the person to contact who is responsible for answering any questions.	ContactPhoneNum
17	Reserved	The line is reserved for future use.	
18	Total number of Forms 1095-C submitted with this transmittal	The total number of Forms 1095-C submitted with this Form 1094-C transmittal.	Form1095CAttachedCnt

#### Part II ALE Member Information

19	Is this the authoritative transmittal for this ALE Member?	If checkbox is checked, identifies the Form 1094-C transmittal as the Authoritative Transmittal to report aggregate employer-level data for the employer.	AuthoritativeTransmittalInd
20	Total number of Forms 1095-C filed by and/or on behalf of ALE Member	The total number of Forms 1095-C that will be filed by and/or on behalf of the employer.	TotalForm1095CALEMemberCnt
21	Is ALE Member a member of and Aggregated ALE Group?	If during any month of the calendar year the employer was a member of an Aggregated ALE Group, check "Yes" checkbox. Otherwise, check the "No" checkbox.	AggregatedGroupMemberCd
22	Certifications of Eligibility	Check each applicable box if the employer meets the eligibility requirements and is using one of the Offer Methods and/or one of the forms of Transition Relief Indicated: A. Qualifying Offer Method D. 98% Offer Method	QualifyingOfferMethodInd NinetyEightPctOfferMethodInd

Form Line Num	1094-C Data Element	Definition	XML Element Name
None	Signature	Not required	JuratSignaturePIN
None	Title	Not required	PersonTitleTxt
None	Date	The date that the submission is completed.	SignatureDt
<b>Part III ALE Member Information – Monthly</b>			ALEMemberInformationGrp
23a-35a	Minimum Essential Coverage Offer Indicator	Indicates if employer offered MEC under an eligible employer-sponsored plan to at least 95% of its full-time employees and their dependents for either the entire calendar year or certain calendar months.	YearlyALEMemberDetail MinEssentialCvrOffrCd JanALEMonthlyInfoGrp- DecALEMonthlyInfoGrp MinEssentialCvrOffrCd
23b-35b	Full-Time Employee Count for ALE Member	The number of full-time employees for each month	JanALEMonthlyInfoGrp- DecALEMonthlyInfoGrp ALEMemberFTECnt
23c-35c	Total Employee Count for ALE Member	The total number of employees (full-time and non-full-time) for each calendar month.	YearlyALEMemberDetail TotalEmployeeCnt JanALEMonthlyInfoGrp- DecALEMonthlyInfoGrp TotalEmployeeCnt
23d-35d	Aggregated Group Indicator	Indicates employer was a member of an Aggregated ALE either for the entire calendar year or certain calendar months.	YearlyALEMemberDetail AggregatedGroupInd JanALEMonthlyInfoGrp- DecALEMonthlyInfoGrp AggregatedGroupInd
<b>Part IV Other ALE Members of Aggregated ALE Group</b>			OtherALEMembersGrp
36-65	Other ALE Members of Aggregated ALE Group  Name	The names and EIN of the other Aggregated ALE Group members (up to 99), if the employer is a member of an Aggregated ALE Group for any month of the calendar year.	BusinessName BusinessNameLine1Txt BusinessNameLine2Txt
36-65	EIN		EIN

**Table 7-10: Form 1095-C**

Form Line Num	1095-C Data Element	Definition	XML Element Name
None		Unique Record ID per submission	RecordId
None		Test Scenario Id	TestScenarioid

Form Line Num	1095-C Data Element	Definition	XML Element Name
None		TIN Request Type Code	TINRequestTypeCd (EmployeeInfoGrp)
None		TIN Request Type Code	TINRequestTypeCd (CoveredIndividualGrp)
None	Corrected	Identifies the Information Return as containing corrections to the previously transmitted and accepted 1095-B.	CorrectedInd
None	CorrectedRecordRecipientGrp	Information to identify the record being corrected	CorrectedRecordRecipientGrp choice CorrectedRecRecipientPrsnName CorrectedRecRecipientName CorrectedRecRecipientTIN
None	Tax Year	Identifies the tax year for which the form is filed"	TaxYr
<b>Part I Employee</b>			EmployeeInfoGrp
1	Name of employee	The name of the employee	OtherCompletePersonName PersonFirstNm PersonMiddleNm PersonLastNm SuffixNm
2	Social security number (SSN)	The 9-digit SSN of the employee	SSN
3	Street address (including apartment no.)	The employee's complete address.  IRS XML schema provides a choice between using US Address or Foreign Address. Differences are noted in individual fields on the right. If TransmitterForeignEntityInd is true then ForeignAddressGrp will be used.	MailingAddressGrp USAddressGrp AddressLine1Txt AddressLine2Txt CityNm USStateCd USZIPCd USZIPExtensionCd
4	City or town		Or ForeignAddressGrp AddressLine1Txt AddressLine2Txt CityNm CountryCd - OR CountryNm
5	State or province		
6	Country and ZIP or foreign postal code		

Form Line Num	1095-C Data Element	Definition	XML Element Name
			ForeignProvinceNm ForeignPostalCd
<b>Applicable Large Employer Member (ALE Member)</b>			
10	Contact telephone number	Contact telephone number, including area code, of the person to contact who is responsible for answering any questions.	ContactPhoneNum
<b>Part II Employee Offer and Coverage</b>			
14	Offer of Coverage	The applicable code from Code Series 1, either for "All 12 Months" if the same code applies for all 12 calendar months, or the applicable code for each month (see form instructions for Code Series 1 values). 1A 1B 1C 1D 1E 1F 1G 1H 1J 1K	EmployeeOfferAndCoverageGrp Choice between  AnnualOfferOfCoverageCd MonthlyOfferCoverageGrp JanOfferCd - DecOfferCd
15	Employee Share of Lowest Cost Monthly Premium, for Self-Only Minimum Value Coverage	The amount of the employee share of the lowest-cost monthly premium for self-only minimum essential coverage providing minimum value that is offered to the employee (only if 1B, 1C, 1D, 1E, 1J or 1K is entered on line 14 ).	EmployeeOfferAndCoverageGrp Choice between  AnnEmployeeRequiredContriAmt  MonthlyEmployeeRequiredContriGrp JanuaryAmt - DecemberAmt
16	Applicable Section 4980H Safe Harbor	The applicable code from Series 2, either for "All 12 Months" if the same code applies for all 12 calendar months, or the applicable code for each month (see form instructions for Code Series 2 values). 2A 2B 2C 2D 2E 2F 2G 2H	EmployeeOfferAndCoverageGrp Choice between  AnnualSafeHarborCd MonthlySafeHarborGrp  JanSafeHarborCd - DecSafeHarborCd
<b>Part III Covered Individuals</b>			

Form Line Num	1095-C Data Element	Definition	XML Element Name
None	Checkbox indicating if Employer provided self-insured coverage.	If the employer is completing Part III, enter “0” or “1” in the check box in Part III. If the employer is not completing Part III, do not enter “1” in the check box in Part III.	CoveredIndividualInd
17a-22a	Name of covered individuals	The name of each covered individual.	CoveredIndividualGrp CoveredIndividualName PersonFirstNm PersonMiddleNm PersonLastNm SuffixNm
17b/c - 22b/c	Covered Individuals	The 9-digit SSN for each covered individual. And The date of birth for the covered individual if SSN is blank.	Choice between SSN BirthDt
17d-22d	Annual or Monthly Coverage	Checkbox if the individual was covered for at least one day per month for all 12 months of the calendar year.	CoveredIndividualGrp CoveredIndividualAnnualInd
17e-22e	Months of Coverage	Checkboxes indicating which months the individual was covered for at least one day if the individual was not covered for all 12 months of the calendar year.	CoveredIndividualGrp CoveredIndividualMonthlyInd JanuaryInd - DecemberInd

## 8 Example ISS-A2A Web Service Messages

---

### 8.1 Transmitter Services SOAP Message Elements

- ACATransmitterManifestReqDtl
- Form109495BTransmittalUpstream
- ACATransmitterManifestRespDtl
- ACATransmitterBusinessHeaderRequest
- ACATransmitterResponseAckGrp
- ACATransmitterManifestRespDtl

#### 8.1.1 IRS-ACASubmitService SOAP Request Message – Manifest Header (ACAGetTransmitterBulkRequestService.wsdl)

The ACABusinessHeader, WSSESecurity, ACASecurity and ACATransmitterManifestReqDtl elements are required for a SOAP request message sent by a transmitter to be sent to transmission to IRS. The root element for the Manifest Header XML Schema is found in IRS-Form1094-1095BCTransmitterReqMessage.xsd file located in the MSG folder.

See Section 7.1 for details on the ACABusinessHeader XML. See Section 5.3.1 for details on the WSSESecurity and ACASecurity XML.

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope
  xmlns:acaBodyReq="urn:us:gov:treasury:irs:msg:irsacabulkrequesttransmitter"
  xmlns:acaBusHeader="urn:us:gov:treasury:irs:msg:acabusinessheader"
  xmlns:irs="urn:us:gov:treasury:irs:common"
  xmlns:airty18="urn:us:gov:treasury:irs:ext:aca:air:ty18"
  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
  <soapenv:Header>
    <airty16:ACATransmitterManifestReqDtl>
      <airty18:PaymentYr>2016</airty18:PaymentYr>
      <airty18:PriorYearDataInd>0</airty18:PriorYearDataInd>
      <irs:EIN>irs:EIN</irs:EIN>
      <airty18:TransmissionTypeCd>0</airty18:TransmissionTypeCd>
      <airty18:TestFileCd>TestFileCode</airty18:TestFileCd>
      <airty18:OriginalReceiptId>OriginalReceiptId
      </airty18:OriginalReceiptId>

      <airty18:TransmitterNameGrp>
        <airty18:BusinessNameLine1Txt>BusinessNameLine1Txt
        </airty18:BusinessNameLine1Txt>
        <airty18:BusinessNameLine2Txt>BusinessNameLine2Txt
        </airty18:BusinessNameLine2Txt>
      </airty18:TransmitterNameGrp>
      <airty18:CompanyInformationGrp>
        <airty18:CompanyNm>CompanyNm</airty18:CompanyNm>
        <airty18:MailingAddressGrp>
          <airty18:USAAddressGrp>
            <airty18:AddressLine1Txt>AddressLine1Txt
            </airty18:AddressLine1Txt>
            <airty18:AddressLine2Txt>AddressLine2Txt
            </airty18:AddressLine2Txt>
          </airty18:USAAddressGrp>
        </airty18:MailingAddressGrp>
      </airty18:CompanyInformationGrp>
    </airty16:ACATransmitterManifestReqDtl>
  </soapenv:Header>
</soapenv:Envelope>
```

```

        </airty18:AddressLine2Txt>
        <irs:CityNm>CityNm</irs:CityNm>
        <airty18:USStateCd>AL</airty18:USStateCd>
        <irs:USZIPCd>20000</irs:USZIPCd>
<irs:USZIPExtensionCd>USZIPExtensionCd</irs:USZIPExtensionCd>
        </airty18:USAddressGrp>
</airty18:MailingAddressGrp>
<airty18:ContactNameGrp>
        <PersonFirstNm>PersonFirstNm</PersonFirstNm>
        <PersonMiddleNm>PersonMiddleNm</PersonMiddleNm>
        <PersonLastNm>PersonLastNm</PersonLastNm>
        <SuffixNm>SuffixNm</SuffixNm>
</airty18:ContactNameGrp>
<airty18:ContactPhoneNum>ContactPhoneNum
</airty18:ContactPhoneNum>
</airty18:CompanyInformationGrp>
<airty18:VendorInformationGrp>
        <airty18:VendorCd>VendorCode</airty18:VendorCd>
        <airty18:ContactNameGrp>
            <PersonFirstNm>PersonFirstNm</PersonFirstNm>
            <PersonMiddleNm>PersonMiddleNm</PersonMiddleNm>
            <PersonLastNm>PersonLastNm</PersonLastNm>
            <SuffixNm>SuffixNm</SuffixNm>
</airty18:ContactNameGrp>

<airty18:ContactPhoneNum>0000000000</airty18:ContactPhoneNum>
</airty18:VendorInformationGrp>
<airty18:TotalPayeeRecordCnt>0</airty18:TotalPayeeRecordCnt>
<airty18:TotalPayerRecordCnt>1</airty18:TotalPayerRecordCnt>
<airty18:SoftwareId>SoftwareId</airty18:SoftwareId>
<airty18:FormTypeCd>1094/1095B</airty18:FormTypeCd>
<irs:BinaryFormatCd>application/xml</irs:BinaryFormatCd>
<irs:ChecksumAugmentationNum>ChecksumAugmentationNum
</irs:ChecksumAugmentationNum>
<irs:AttachmentByteSizeNum>0</irs:AttachmentByteSizeNum>
<airty18:DocumentSystemFileNm>DocumentSystemFileNm.xml</airty18:DocumentSystem
FileNm>
        </airty18:ACATransmitterManifestReqDtl>
<acaBusHeader:ACABusinessHeader>
        <airty18:UniqueTransmissionId>54213342-e29b-41d4-a716-
594645440013:SYS12:XXXXX::T
        </airty18:UniqueTransmissionId>
        <irs:Timestamp>2019-01-10T12:31:22Z</irs:Timestamp>
</acaBusHeader:ACABusinessHeader>
<urn4:ACASecurityHeader
        xmlns:urn4="urn:us:gov:treasury:irs:msg:acasecurityheader" />
<oas:Security
        xmlns:oas="http://docs.oasis-open.org/wss/2004/01/oasis-200401-
wss-wssecurity-secext-1.0.xsd" />
</soapenv:Header>
<soapenv:Body>
        <acaBodyReq:ACABulkRequestTransmitter
            version="1.0">
<irs:BulkExchangeFile>DocumentSystemFileNm.xml</irs:BulkExchangeFile>
        </acaBodyReq:ACABulkRequestTransmitter>

```

```

</soapenv:Body>
</soapenv:Envelope>

```

## 8.1.2 IRS-ACASubmitService SOAP Request Message – Form Data File (ACAGetTransmitterBulkRequestService.wsdl)

The following sample XML includes the Form Data File elements required for a SOAP request message sent by a transmitter to send a Form 1094/1095-B transmission to IRS. The root element for the Form 1094/1095-B Form Data File XML Schema is found in IRS-Form1094-1095BTransmitterUpstreamMessage.xsd file located in the MSG folder.

```

<?xml version="1.0" encoding="UTF-8"?>
<n1:Form109495BTransmittalUpstream
    xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty18"
    xmlns:irs="urn:us:gov:treasury:irs:common"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xmlns:n1="urn:us:gov:treasury:irs:msg:form1094-
1095Btransmitterupstreammessage"
    xsi:schemaLocation="urn:us:gov:treasury:irs:msg:form1094-
1095Btransmitterupstreammessage IRS-Form1094-1095BTransmitterUpstreamMessage.xsd">
    <Form1094BUpstreamDetail recordType="String" lineNum="0">
        <SubmissionId>1</SubmissionId>
        <OriginalUniqueSubmissionId>1094B-19-
00000001|1</OriginalUniqueSubmissionId>
        <TestScenarioId>1-1</TestScenarioId>
        <TaxYr>2018</TaxYr>
        <BusinessName>
            <BusinessNameLine1Txt>Business Name Line</BusinessNameLine1Txt>
            <BusinessNameLine2Txt>Business Name Line 2</BusinessNameLine2Txt>
        </BusinessName>
        <BusinessNameControlTxt>BUSI</BusinessNameControlTxt>
        <irs:TINRequestTypeCd>BUSINESS_TIN</irs:TINRequestTypeCd>
        <irs:EmployerEIN>000000000</irs:EmployerEIN>
        <ContactNameGrp>
            <PersonFirstNm>First</PersonFirstNm>
            <PersonMiddleNm>Middle</PersonMiddleNm>
            <PersonLastNm>Last</PersonLastNm>
            <SuffixNm>Suffix</SuffixNm>
        </ContactNameGrp>
        <ContactPhoneNum>0000000000</ContactPhoneNum>
        <MailingAddressGrp>
            <USAddressGrp>
                <AddressLine1Txt>Address Line</AddressLine1Txt>
                <AddressLine2Txt>Address Line 2</AddressLine2Txt>
                <irs:CityNm>City</irs:CityNm>
                <USStateCd>AL</USStateCd>
                <irs:USZIPCd>22222</irs:USZIPCd>
                <irs:USZIPExtensionCd>2222</irs:USZIPExtensionCd>
            </USAddressGrp>
        </MailingAddressGrp>
        <Form1095BAttachedCnt>1</Form1095BAttachedCnt>
        <Form1095BUpstreamDetail recordType="String" lineNum="0">
            <RecordId>1</RecordId>
            <TestScenarioId>2-1</TestScenarioId>

```

```

<CorrectedInd>1</CorrectedInd>
<CorrectedRecordInfoGrp>
  <CorrectedUniqueRecordId>1094B-19-
00000001|1|1</CorrectedUniqueRecordId>
  <CorrectedRecordPayeeName>
    <PersonFirstName>First</PersonFirstName>
    <PersonMiddleName>Middle</PersonMiddleName>
    <PersonLastName>Last</PersonLastName>
    <SuffixNm>Suffix</SuffixNm>
  </CorrectedRecordPayeeName>

  <CorrectedRecordPayeeTIN>00000000</CorrectedRecordPayeeTIN>
  </CorrectedRecordInfoGrp>
  <TaxYr>2016</TaxYr>
  <ResponsibleIndividualGrp>
    <ResponsibleIndividualName>
      <PersonFirstName>First</PersonFirstName>
      <PersonMiddleName>Middle</PersonMiddleName>
      <PersonLastName>Last</PersonLastName>
      <SuffixNm>Suffix</SuffixNm>
    </ResponsibleIndividualName>
    <PersonNameControlTxt>LAST</PersonNameControlTxt>

  <irs:TINRequestTypeCd>INDIVIDUAL_TIN</irs:TINRequestTypeCd>
  <irs:SSN>00000000</irs:SSN>
  <BirthDt>1957-08-13</BirthDt>
  <MailingAddressGrp>
    <USAddressGrp>
      <AddressLine1Txt>Address
Line</AddressLine1Txt>
      <AddressLine2Txt>Address Line
2</AddressLine2Txt>
      <irs:CityNm>City</irs:CityNm>
      <USStateCd>AK</USStateCd>
      <irs:USZIPCd>2222</irs:USZIPCd>

      <irs:USZIPExtensionCd>2222</irs:USZIPExtensionCd>
      </USAddressGrp>
    </MailingAddressGrp>
    <PolicyOriginCd>A</PolicyOriginCd>
  </ResponsibleIndividualGrp>
  <SponsoringEmployerInfoGrp>
    <BusinessName>
      <BusinessNameLine1Txt>Business Name
Line</BusinessNameLine1Txt>
      <BusinessNameLine2Txt>Business Name Line
2</BusinessNameLine2Txt>
      </BusinessName>
      <BusinessNameControlTxt>BUSI</BusinessNameControlTxt>
      <irs:EIN>00000000</irs:EIN>
      <irs:TINRequestTypeCd>BUSINESS_TIN</irs:TINRequestTypeCd>
      <MailingAddressGrp>
        <USAddressGrp>
          <AddressLine1Txt>Address
Line</AddressLine1Txt>
          <AddressLine2Txt>Address Line
2</AddressLine2Txt>
        </USAddressGrp>
      </MailingAddressGrp>
    </SponsoringEmployerInfoGrp>
  </ResponsibleIndividualGrp>
</CorrectedRecordInfoGrp>

```

```

2</AddressLine2Txt>
    <irs:CityNm>City</irs:CityNm>
    <USStateCd>AL</USStateCd>
    <irs:USZIPCd>22222</irs:USZIPCd>

    <irs:USZIPExtensionCd>2222</irs:USZIPExtensionCd>
        </USAddressGrp>
    </MailingAddressGrp>
</SponsoringEmployerInfoGrp>
<IssuerInfoGrp>
    <BusinessName>
        <BusinessNameLine1Txt>Business Name
    Line</BusinessNameLine1Txt>
        <BusinessNameLine2Txt>Business Name Line
2</BusinessNameLine2Txt>
    </BusinessName>
    <BusinessNameControlTxt>BUSI</BusinessNameControlTxt>
    <irs:TINRequestTypeCd>BUSINESS_TIN</irs:TINRequestTypeCd>
    <irs:EIN>000000000</irs:EIN>
    <ContactPhoneNum>0000000000</ContactPhoneNum>
    <MailingAddressGrp>
        <USAddressGrp>
            <AddressLine1Txt>Address
    Line</AddressLine1Txt>
            <AddressLine2Txt>Address Line
2</AddressLine2Txt>
    <irs:CityNm>City</irs:CityNm>
    <USStateCd>AL</USStateCd>
    <irs:USZIPCd>22222</irs:USZIPCd>

    <irs:USZIPExtensionCd>2222</irs:USZIPExtensionCd>
        </USAddressGrp>
    </MailingAddressGrp>
</IssuerInfoGrp>
<CoveredIndividualGrp>
    <CoveredIndividualName>
        <PersonFirstNm>First</PersonFirstNm>
        <PersonMiddleNm>Middle</PersonMiddleNm>
        <PersonLastNm>Last</PersonLastNm>
        <SuffixNm>Suffix</SuffixNm>
    </CoveredIndividualName>
    <PersonNameControlTxt>LAST</PersonNameControlTxt>

    <irs:TINRequestTypeCd>INDIVIDUAL_TIN</irs:TINRequestTypeCd>
    <irs:SSN>000000000</irs:SSN>
    <BirthDt>1957-08-13</BirthDt>
    <CoveredIndividualAnnualInd>1</CoveredIndividualAnnualInd>
    <CoveredIndividualMonthlyIndGrp>
        <JanuaryInd>1</JanuaryInd>
        <FebruaryInd>1</FebruaryInd>
        <MarchInd>1</MarchInd>
        <AprilInd>1</AprilInd>
        <MayInd>1</MayInd>
        <JuneInd>1</JuneInd>
        <JulyInd>1</JulyInd>
        <AugustInd>1</AugustInd>

```

```

        <SeptemberInd>1</SeptemberInd>
        <OctoberInd>1</OctoberInd>
        <NovemberInd>1</NovemberInd>
        <DecemberInd>1</DecemberInd>
    </CoveredIndividualMonthlyIndGrp>
</CoveredIndividualGrp>
</Form1095BUpstreamDetail>
<JuratSignaturePIN>2222</JuratSignaturePIN>
<PersonTitleTxt>Title</PersonTitleTxt>
</n1:Form109495BTransmittalUpstream><SignatureDt>2019-08-13</SignatureDt>
</Form1094BUpstreamDetail>
</n1:Form109495BTransmittalUpstream>

```

### 8.1.3 IRS-ACASubmitService SOAP Response Message (ACAGetTransmitterBulkRequestService.wsdl)

The following sample XML includes the Manifest Header elements required in the SOAP Response message sent by IRS to the transmitter. The SOAP Response message is returned to the transmitter as part of the synchronous session for sending transmissions to IRS. The root element for the SOAP Response message XML Schema (applies to both Forms 1094/1095-B and Forms 1094/1095-C) is found in IRS-Form1094-1095BCTransmitterRespMessage.xsd file located in the MSG folder.

```

<soap:Envelope xmlns:soap="http://schemas.xmlsoap.org/soap/envelope/">
<soap:Header>
<acaBusHeader:ACABusinessHeader
    xmlns:irs="urn:us:gov:treasury:irs:common"
    xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty18"
    xmlns:ns3="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
    utility-1.0.xsd"
    xmlns:ns4="http://www.w3.org/2000/09/xmldsig#"
    xmlns:acaBusHeader="urn:us:gov:treasury:irs:msg:acabusinessheader"
    xmlns:ns6="urn:us:gov:treasury:irs:msg:irsacabulkrequesttransmitter"
    xmlns:ns7="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
    1.0.xsd"
    xmlns:ns8="urn:us:gov:treasury:irs:msg:acasecurityheader">
<UniqueTransmissionId>Ae2320b33-f329-31d4-a716-394655440000:SYS12:XXXXX::T
    </UniqueTransmissionId>
<irs:Timestamp>2019-11-18T21:18:58Z</irs:Timestamp>
    </acaBusHeader:ACABusinessHeader>
</soap:Header>
<soap:Body>
<acaBodyReq:ACABulkRequestTransmitterResponse
    xmlns:irs="urn:us:gov:treasury:irs:common"
    xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty18"
    xmlns:ns3="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-
    utility-1.0.xsd"
    xmlns:ns4="http://www.w3.org/2000/09/xmldsig#"
    xmlns:ns5="urn:us:gov:treasury:irs:msg:acabusinessheader"
    xmlns:acaBodyReq="urn:us:gov:treasury:irs:msg:irsacabulkrequesttransmitter"
    xmlns:ns7="http://docs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-
    1.0.xsd"
    xmlns:ns8="urn:us:gov:treasury:irs:msg:acasecurityheader">
    <TransmissionStatusCd>Processing</TransmissionStatusCd>
    <irs:ReceiptId>1094B-19-00000000</irs:ReceiptId>

```

```

</acaBodyReq:ACABulkRequestTransmitterResponse>
</soap:Body>
</soap:Envelope>

```

## 8.1.4 IRS-ACAAckngService SOAP Request Message (ACAGetTransmitterBulkRequestStatus.wsdl)

The following sample XML provided by IRS as a response to a status service request made by the transmitter. The SOAP Response message is returned to the transmitter as part of the synchronous session. The root element for the SOAP Response message XML Schema (applies to both Forms 1094/1095-B and Forms 1094/1095-C) is found in IRS-Form1094-1095BCResponseAckMessage.xsd file located in the MSG folder.

```

<?xml version="1.0" encoding="UTF-8"?>
<p:FormBCTransmittalAckResponse xmlns:p="urn:us:gov:treasury:irs:msg:form1094-1095bcresponseackmessage" xmlns:p1="urn:us:gov:treasury:irs:ext:aca:air:ty18" xmlns:p2="urn:us:gov:treasury:irs:common" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:us:gov:treasury:irs:msg:form1094-1095bcresponseackmessage IRS-Form1094-1095BCResponseAckMessage.xsd ">
  <p1:ACATransmitterResponseAckGrp>
    <p2:ReceiptId> ReceiptId</p2:ReceiptId>
    <p1:TransmitterControlCd> XXXXX</p1:TransmitterControlCd>
  </p1:ACATransmitterResponseAckGrp>
</p:FormBCTransmittalAckResponse>

```

## 8.1.5 IRS-ACAAckngService SOAP Response Message – Manifest Header (ACAGetTransmitterBulkRequestStatus.wsdl)

```

<p:TransmitterManifestResponse xmlns:p="urn:us:gov:treasury:irs:msg:form1094-1095BCtransmitterrespmessage" xmlns:p1="urn:us:gov:treasury:irs:ext:aca:air:ty18" xmlns:p2="urn:us:gov:treasury:irs:common" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="urn:us:gov:treasury:irs:msg:form1094-1095BCtransmitterrespmessage IRS-Form1094-1095BCtransmitterRespMessage.xsd ">
  <p1:ACATransmitterManifestRespDtl>
    <p1:UniqueTransmitterId> UniqueTransmitterId</p1:UniqueTransmitterId>
    <p1:TransmitterControlCd> XXXXX</p1:TransmitterControlCd>
    <p1:ShipmentRecordNum>XXXXX00</p1:ShipmentRecordNum>
    <p2:ReceiptId> ReceiptId</p2:ReceiptId>
    <p1:FormTypeCd>1094/1095B</p1:FormTypeCd>
    <p2:Timestamp>2019-11-31T12:00:00Z</p2:Timestamp>
    <p2:SubmissionStatusCd>Accepted</p2:SubmissionStatusCd>
    <p2:ErrorMessageDetail>
      <p2:ErrorMessageCd> ErrorMessageCd</p2:ErrorMessageCd>
    </p2:ErrorMessageDetail>
    <p2:DocumentSystemFileNm>DocumentSystemFileNm </p2:DocumentSystemFileNm>
  <p2:ChecksumAugmentationNum> ChecksumAugmentationNum</p2:ChecksumAugmentationNum>
    <p2:AttachmentByteSizeNum>14556</p2:AttachmentByteSizeNum>
  </p1:ACATransmitterManifestRespDtl>
</p:TransmitterManifestResponse>

```

## 8.1.6 IRS- ACAAckngService SOAP Response Message – Error Data File (ACAGetTransmitterBulkRequestStatus.wsdl)

The following sample XML includes the Error Data File elements that are sent by IRS to a transmitter to provide error status detail. The root element for the Forms 1094/1095-B Error Data File XML Schema is found in IRS-Form1094-1095BCTransmitterMessage.xsd file located in the MSG folder.

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<ns3:FormBCTransmitterSubmissionDtl
    xmlns="urn:us:gov:treasury:irs:ext:aca:air:ty18"
    xmlns:ns2="urn:us:gov:treasury:irs:common"
    xmlns:ns3="urn:us:gov:treasury:irs:msg:form1094-1095BCTransmittermessage">
    <ACATransmitterSubmissionDetail>
        <TransmitterErrorDetailGrp>
            <SubmissionLevelStatusCd>Accepted with Errors
                </SubmissionLevelStatusCd>
                <UniqueSubmissionId>1094C-19-00000004|1</UniqueSubmissionId>
                </TransmitterErrorDetailGrp>
                <TransmitterErrorDetailGrp>
                    <UniqueRecordId>1094C-19-00000004|1|2</UniqueRecordId>
                    <ns2:ErrorMessageDetail>
                        <ns2:ErrorMessageCd>1095C-041-02</ns2:ErrorMessageCd>
                        <ns2:ErrorMessageTxt>If Form 1095C 'BirthDt' in
                            'CoveredIndividualGrp' has a value, then it must not occur in the
                            future (greater than current processing date)</ns2:ErrorMessageTxt>
                        <ns2:XpathContent>/Form109495CTransmittalUpstream/Form1094CUpstreamDetail/Form1095CUp
                            streamDetail/CoveredIndividualGrp[1]/BirthDt
                        </ns2:XpathContent>
                        </ns2:ErrorMessageDetail>
                    </TransmitterErrorDetailGrp>
                    <TransmitterErrorDetailGrp>
                        <ns2:ErrorMessageDetail>
                            <ns2:ErrorMessageCd>MANIFEST-013</ns2:ErrorMessageCd>
                            <ns2:ErrorMessageTxt>The value in Manifest 'TotalPayeeCount' must
                                equal the number of 1095s within the submission </ns2:ErrorMessageTxt>
                        </ns2:ErrorMessageDetail>
                    </TransmitterErrorDetailGrp>
                    <TransmitterErrorDetailGrp>
                        <UniqueRecordId>1094C-19-00000004|1|1</UniqueRecordId>
                        <ns2:ErrorMessageDetail>
                            <ns2:ErrorMessageCd>1095C-042-02</ns2:ErrorMessageCd>
                            <ns2:ErrorMessageTxt>If Form 1095C 'BirthDt' in
                                'CoveredIndividualGrp' has a value, then it must not be earlier
                                than Tax Year minus 120 years</ns2:ErrorMessageTxt>
                            <ns2:XpathContent>/Form109495CTransmittalUpstream/Form1094CUpstreamDetail/Form1095CUp
                                streamDetail/CoveredIndividualGrp[1]/BirthDt
                            </ns2:XpathContent>
                            </ns2:ErrorMessageDetail>
                        </TransmitterErrorDetailGrp>
                    </ACATransmitterSubmissionDetail>
    </ns3:FormBCTransmitterSubmissionDtl>
```

## **9 General Philosophy on Data Elements in XML Schemas**

---

In general, most data elements in the schemas for each form, schedule, and supporting document have been declared optional. Most of the required elements are in the schema for the SOAP message header. The schema for the SOAP message header contains identifying information about the entity filing the return, the officer responsible for the data in the return, the preparer, and the preparing firm. Hence there are very few data elements that are not required.

This philosophy of keeping most data elements optional in the schemas is consistent with the way paper returns are filed, i.e., the taxpayer and return preparer have the responsibility to provide information as specified by IRS forms, instructions, and regulations.

# 10 Validating a Transmission against XML Schema

---

## 10.1 Structure of Transmission

Following is a high-level content model of a transmission XML:

```
Transmission
  SOAP Envelope
  SOAP Header
    ACA Business Header
    ACA Security Header
    WSSESecurity Header
    Manifest Header
  SOAP Body
    Form Data File (MTOM Attachment)
```

See Section 12.1 for a description of the Processing Assertions, associated error codes and actions relevant to errors detected in IRS Portal that result in a rejection of the message. In these cases, AIR does not receive the transmission for processing and thus IRS does not have a record of the transmission. The Transmitter must fix the problem that resulted in the error condition and retransmit the transmission exactly as intended (i.e., Original records, Correction records, or Replacement transmission).

## 10.2 Validation of Transmission

Validation of Transmission requires that the transmission, which is an XML document, complies with latest published XML schema, schema versioning rules, encoding scheme, etc. This section covers important aspects of transmission validation rules.

When entering character data into an XML document, it is important to ensure that the specified encoding supports the characters provided. By design, AIR uses Unicode Transformation Format-8 (UTF-8). AIR does not support any other encoding scheme (for example, UTF-16 and UTF-32).

Schema versions are baselined as major or minor releases. A major release is not backward compatible. That is to say, that XML documents developed against an older release of the XML Schema will not validate against the updated release of the XML Schema. A release of the XML Schema is considered major if it introduces mandatory (required) structural changes (e.g., an “optional” XML element is changed to “required” or new “required” elements are introduced). Whereas a minor release of the XML Schema is backward compatible in that no mandatory structural changes are introduced (e.g., a “required” XML element is changed to “optional” or new “optional” XML elements are introduced).

Transmissions will be validated against the applicable major version, including all minor releases pertaining to the major version, of an XML Schema against which the XML document was generated.

Below are some XML resources regarding XML Schemas and software tools and parsers. (These resources are provided for information only—IRS is not endorsing any product.)

- W3C XML Home Page: <http://www.w3.org/XML/>
- W3C XML Schema Home Page: <http://www.w3.org/XML/Schema>

- XML Spy: <http://www.xmlspy.com/>
- Apache Xerces parser toolkit: <http://xml.apache.org/>

Note: You may choose any third party parser toolkit or use your own.

## 10.3 Validating the Transmission Envelope Including Contents

The transmission file is a MIME (Multipurpose Internet Mail Extensions )multi-part document that conforms to the “SOAP 1.1 with attachments” standard. It consists of two parts: the SOAP envelope and the SOAP attachment. The SOAP envelope maintains transmission level information, and the SOAP attachment contains the returns. MIME boundaries separate the two parts in the multi-part document.

The SOAP envelope consists of a SOAP header and a SOAP body. The SOAP header, also referred to as the *transmission header* in AIR, contains information about the transmitter and the transmission. The SOAP body, also referred to as the *transmission manifest*, contains a list of all returns included in the SOAP attachment. The following example illustrates MIME boundaries between the SOAP header, SOAP body, and SOAP attachment.

```
POST https://hostname/airp/aca/a2a/1095BC_Transmission_AATS2016 HTTP/1.1
Content-Encoding: gzip
Accept-Encoding: gzip,deflate
Content-Type: multipart/related; type="application/xop+xml";
start=<rootpart>; start-info="text/xml"; boundary="-----_
=Part_5_195420953.1451508837622"
SOAPAction: "BulkRequestTransmitter"
MIME-Version: 1.0
Host: hostname
Connection: Keep-Alive

-----=_Part_5_195420953.1451508837622
Content-Type: application/xop+xml; charset=UTF-8; type="text/xml"
Content-Transfer-Encoding: 8bit
Content-ID: <rootpart>

<soap:Envelope>
  <soap:Header>
    ...
  </soap:Header>
  <soap:Body>
    <urn4:ACABulkRequestTransmitter version="1.0">
      <urn1:BulkExchangeFile><inc:Include
href="cid:1095BCTransBaseAttachment.xml"
xmlns:inc="http://www.w3.org/2004/08/xop/include"/></urn1:BulkExchangeFile>
      </urn4:ACABulkRequestTransmitter>
    </soap:Body>
  </soap:Envelope>

-----=_Part_5_195420953.1451508837622
Content-Type: text/xml; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-ID: <1095BCTransBaseAttachment.xml>
Content-Disposition: attachment; name="1095BCTransBaseAttachment.xml"

<n1:Form109495BTransmittalUpstream>
  ...

```

```
</n1:Form109495BTransmittalUpstream>  
-----_Part_5_195420953.1451508837622-
```

Validation of the SOAP envelope (a.k.a., transmission envelope) including its contents consists of the following steps.

1. Validate the SOAP envelope XML instance against the SOAP schema, [SOAP.xsd](http://schemas.xmlsoap.org/soap/envelope/) The standard SOAP schema has been used without modification: <http://schemas.xmlsoap.org/soap/envelope/>.
2. Validate SOAP header against schema. SOAP header consists of two elements:
  - ACABusinessHeader
  - ACABatchManifestDetailACABusinessHeader and ACABatchManifestDetail are defined in IRS-CAC.xsd file.
3. Validate SOAP body against schema. SOAP body consists of one element:
  - BulkRequestTransmitter

The structure and content of the transmission file and each return included in the transmission file is validated to ensure that it conforms to the structure published by IRS and the rules established by IRS.

- The structure of the transmission file is checked for conformance to MIME standard, and the structure of the return data is checked to ensure that it conforms to the XML Schemas published by IRS.
- The return data is validated against IRS databases and checked for conformance to business rules published by IRS.

## 10.4 How Errors are Reported

When either structural violations are discovered or the data fails one or more business rules, errors are generated and reported to the transmitter in an Error Data File when the transmitter requests the Acknowledgement for the transmission.

The headers in the transmission file are validated to ensure that their values (and their parameter values, if any) are set correctly. The content of the transmission envelope is validated to ensure that it is structurally correct (XML Schema validation per SOAP1.1) and each reference in the transmission manifest is found in the transmission file. If the transmission file structure fails XML Schema validation or violates certain fatal manifest rules published by IRS, the entire transmission is rejected. The returns included within the transmission file are NOT checked for errors in this case.

If the transmission file structure conforms to IRS manifest and manifest business rules, then each return in the transmission file is validated to make sure that the data is structurally correct and conforms to the published business rules. Structural correctness means that the data conforms to the published XML Schemas. For example, all required elements are present and they conform to their established cardinality. Conforming to business rules means that the relationships among the data elements hold as stated in the published business rules. When structural violations are discovered or the data fails one or more business rules, errors are generated, persisted within AIR and reported to the transmitter in an Error Data File.

AIR performs two types of validations against a transmission:

- **Structural Validation – Conformance of XML data against the published schemas**
- **Business Rule Validation – Conformance of data to the established relationships among data elements**

As stated above, when a structural violation is discovered in the transmission file, the transmission is rejected. For example, if the ID of the transmitter (e. g., TCC) is not included in the transmission header, the transmission is rejected and the content of the attached Form Data File is not examined.

On the other hand, when a structural violation (conformance of XML data against published schema i.e. not well-formed or missing required elements) is discovered in a return, *the entire transmission or submission will be rejected with AIRSH100 error code*. When the data violates a business rule that checks data against an IRS database (e.g., the UTID or TCC provided is not listed in IRS database) or when the data violates a business rule that checks for data consistency, then *the return is Accepted-with- Errors or Rejected* and errors are reported back to the transmitter in Error Data File. Errors reported to the transmitter needs to be corrected and resubmitted to IRS.

- When the transmission is Accepted with Errors and the only errors identified are Manifest errors with a severity of “Report Error”, these errors cannot be corrected and the messages are for informational purposes only.

# **11 Reporting Business Rule Validation Errors**

---

AIR will process health coverage data received via Issuer Information Returns (Forms 1094-B, *Transmittal of Health Coverage Information Returns* and 1095-B, *Health Coverage*) and Employer Information Returns (Forms 1094-C, *Transmittal of Employer-Provided Health Insurance Offer and Coverage Information Returns* and 1095-C, *Employer-Provided Health Insurance Offer and Coverage*). AIR will ensure that all AIR data is processed according to approved requirements and validated according to IRS business rules. The business rules are applied in order to validate the received data and perform error analysis.

## **11.1 Overview**

The structure and content of the transmission file and each included Information Return is validated to ensure it conforms to the published structure and rules established by IRS. Structural validation includes validating a transmission against a schema which was covered in the previous section. Data validation of information returns includes validating a transmission against IRS business rules.

Sets of business rules specify the validation rules for Forms 1094/1095-B and Forms 1094/1095-C Information Returns. The business rules are tailored to accommodate unique data elements/schema items, various potential error conditions and other particulars of the ACA Information Returns.

## **11.2 Data Validation and Error Reporting**

IRS business rules specify the potential error conditions for each Information Return element and indicate if the error is reported (via error statement and/or code) to the transmitter. It must be noted that “faults” (described in the next section) differ from validation errors – a fault is an issue during transmission whereas a validation error is the result of business rules processing.

When data elements fail business rules, errors are generated and reported to the transmitter via a status request. Structural/Schema errors result in the transmission being rejected. Information Return Business Rule validation will result in the errors being reported to the transmitter (when requested). Rejections could occur at the submission/transmittal level (Form 1094 with associated Forms 1095) depending on the error condition.

Transmitters should not include optional XML elements if they do not have data for the element.

### **11.2.1 Processing Status**

When a transmitter requests the Acknowledgement for their transmission, IRS returns one of the following statuses:

- Accepted
- Accepted with Errors
- Partially Accepted
- Rejected
- Processing
- Not Found

In addition, any errors that were found when the transmission was processed are provided in the Error Data File. The next section discusses the error codes and their respective descriptions.

## **11.2.2 Error and Business Rule Library**

AIR Error Code Library contains the error codes and descriptions that may be returned to the transmitter, and is aligned with the XML Schema and the ACA AIR Business Rules for each major and minor release.

The AIR TY2016 Business Rules can be found on the following irs.gov web site: [AIR TY2016 Business Rules](#) (See Business Rules Version PDF and CSV Formats).

The AIR TY2017 Business Rules can be found on the following irs.gov web site: [AIR TY2017 Business Rules](#) (See Business Rules Version PDF and CSV Formats).

The AIR TY2018 Business Rules can be found on the following irs.gov web site: [AIR TY2018 Business Rules](#) (See Business Rules Version PDF and CSV Formats).

## 12 SOAP Fault Response Messages

---

Instead of a response SOAP message, IRS may send a SOAP fault message to the transmitter if request SOAP message has a fatal error. This section describes conditions that will result in SOAP fault.

- 1) When the transmission through the UI or A2A transmission channel is rejected in IRS portal, there are indications that there is an error in the message pertaining to things like the SOAP envelope (Headers or Body), certain rules pertaining to the SOAP message have not been followed (such as the Form Data File exceeds the 100 MB file size constraint), the WS-Security elements are incorrect, potential XML threats have been detected either in the message or the MTOM attachment, and other possible problems.
- 2) A triggered SOAP fault, with a description, will be displayed on the page as applicable. The SOAP fault will not be downloaded in the UI browser interface by clicking the blue Download button. The blue Download button will allow the user to download the IRI response file as forwarded by the IRI backend systems

### 12.1 ISS-Portal Error Codes and Messages

The error codes and messages included in Table 12-1 provide information that would be returned from IRS to the Transmitter in the event a transmission is rejected before it can be transmitted to AIR. These error codes are specifically prefixed with "TPE" to identify that the transmission was rejected before it got to AIR.

In the event a Transmitter receives one of the fault codes included in the following table, they must address the cause of the rejection and resubmit the transmission.

**Table 12-1: Portal Error Codes (Fault Codes) for Tax Years 2015, 2016, 2017 and 2018**

Fault Code	Service Leg	Reason	Channel	ISS Fault Message
TPE1001	Request	Message Delivery Failure	A2A	We are experiencing a technical issue. Please try your request again later. We apologize for the inconvenience.
			UI	We are experiencing a technical issue [Error Code 6052]. Please try your request again later. We apologize for the inconvenience.
TPE1102	Request	Service Window Closed	A2A	The requested service is not available at this time. Please resubmit during normal operation hours.
			UI	*Error not applicable to ISS-UI

Fault Code	Service Leg	Reason	Channel	ISS Fault Message
TPE1104	Request	Request is not compliant	A2A	The request is not compliant with web service policy requirements. Please review the transmission instructions outlined in Section 5. Correct any issues, and try again.
			UI	We are experiencing a technical issue [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.
TPE1105	Request	XML is not well-formed	A2A	The message was not formatted properly and/or cannot be interpreted. Please review the XML standards outlined in Section 3. Correct any issues, and try again.
			UI	[TPE1105] Our system has detected a potential threat in the Manifest file you are attempting to transmit and it cannot be transmitted. This may be due to malformed XML. Please review the XML standards outlined in Section 3. Correct any issues on the Manifest file, and try again.
TPE1106	Request	SOAP message does not conform to WSDL	A2A	The message did not match our current WSDL and/or schema. Please see the FaultDetails information below for the particular element(s) our system has detected a potential issue with. Please review the WSDLs and published schemas located at <a href="https://www.irs.gov/e-file-providers/air/affordable-care-act-information-returns-schemas">https://www.irs.gov/e-file-providers/air/affordable-care-act-information-returns-schemas</a> , correct any issues, and try again.

Fault Code	Service Leg	Reason	Channel	ISS Fault Message
			UI	[TPE1106] The manifest file does not match our current schema. In particular, our system has detected a potential issue with the following element(s): <Element1>, <Element2>, <Element3>, and others. Please review the published schemas located here ( <a href="https://www.irs.gov/e-file-providers/air/affordable-care-act-information-returns-schemas">https://www.irs.gov/e-file-providers/air/affordable-care-act-information-returns-schemas</a> ), correct any issues, and try again.
TPE1107	Request	Message exceeds maximum size limit of 100MB	A2A	Request message exceeds the maximum size limit. Please review the XML file standards outlined in Section 3. Correct any issues with the request, and try again.
			UI	[TPE1107] The Form file exceeds the 100MB size limit. Please review the XML file standards outlined in Section 3. Correct any issues with the request, and try again.
TPE1108	Request	Potential security threat	A2A	Our system has detected a potential threat in the transmission and it can not be transmitted. Please review the XML standards outlined in Section 3. Correct any issues, and try again.
			UI	[TPE1108] Our system has detected a potential threat in the Manifest file and it cannot be transmitted. Please review the XML standards outlined in Section 3. Correct any issues on the Manifest file, and try again.

Fault Code	Service Leg	Reason	Channel	ISS Fault Message
TPE1109	Request	Potential security threat	A2A	Our system has detected a potential threat in the transmission and it can not be transmitted. Please review the XML standards outlined in Section 3. Correct any issues, and try again.
			UI	[TPE1109] Our system has detected a potential threat in the Manifest file and it cannot be transmitted. Please review the XML standards outlined in Section 3. Correct any issues on the Manifest file, and try again.
TPE1110	Request	Potential security threat	A2A	Our system has detected a potential threat in the transmission and it can not be transmitted. Please review the XML standards outlined in Section 3. Correct any issues, and try again.
			UI	[TPE1110] Our system has detected a potential threat in the Manifest file and it cannot be transmitted. Please review the XML standards outlined in Section 3. Correct any issues on the Manifest file, and try again.
TPE1112	Request	HTTP Compression Failure	A2A	The request message must be sent using HTTP compression (RFC 1952 - GZIP). Please review the transmission instructions outlined in Section 5. Correct any issues, and try again.
			UI	*Error not applicable to ISS-UI

Fault Code	Service Leg	Reason	Channel	ISS Fault Message
TPE1114	Request	Message not MTOM encoded	A2A	The request message must be MTOM encoded. Please review the transmission instructions outlined in Section 5. Correct any issues, and try again.
			UI	*Error not applicable to ISS-UI
TPE1115	Request	Unable to decode MTOM encoded request message	A2A	We are experiencing a technical issue. Please try your request again later. We apologize for the inconvenience.
			UI	*Error not applicable to ISS-UI
TPE1118	Request	Manifest file UF8-BOM Encoded	A2A	*Error not applicable to ISS-A2A
			UI	[TPE1118] Our system has detected UTF-8 BOM encoding in the Manifest file and cannot be interpreted. Please review the XML standards outlined in Section 10. Correct any issues, and try again.
TPE1122	Request	Invalid WS Security Signature	A2A	The WS Security Header in the message is invalid. Please review the transmission instructions outlined in Section 5. Correct any issues, and try again.
			UI	*Error not applicable to ISS-UI
TPE1126	Request	Internal Authentication Failure	A2A	We are experiencing a technical issue. Please try your request again later. We apologize for the inconvenience.
			UI	We are experiencing a technical issue [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.
TPE1127	Request	Missing credentials in HTTP request	A2A	Message not formatted properly and is missing HTTP credentials. Please check message and try again.
			UI	We are experiencing a technical issue [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.

Fault Code	Service Leg	Reason	Channel	ISS Fault Message
TPE1128	Request	Authentication Failure	A2A	We were unable to authenticate your credentials. Please review the information about digital certificates included in Section 5. Ensure that the credentials are valid, and try again.
			UI	We are experiencing a technical issue [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.
TPE1129	Request	Authorization Failure	A2A	We were unable to authorize your credentials. Please review the information about digital certificates included in Section 5. Ensure that the credentials are valid, and try again.
			UI	We are experiencing a technical issue [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.
TPE1130	Request	Request contains Invalid Test File Code value	A2A	Our system has detected an error with the Test File Code. Please check the message and try again. Please note that the Test File Code value of 'T' is used for AATS transmissions and the Test File Code value of 'P' is used for transmissions intended for IRS compliance processing.
			UI	[TPE1130] Our system has detected an error with the Test File Code of your Manifest file. Please check the file and try again. Please note that the Test File Code value of 'T' is used for AATS transmissions and the Test File Code value of 'P' is used for transmissions intended for IRS compliance processing.

Fault Code	Service Leg	Reason	Channel	ISS Fault Message
TPE1131	Request	Request message UTID is either missing or invalid	A2A	Our system has detected an error with the Unique Transmission ID. Please review the UTID format outlined in Section 5. Correct any issues, and try again.
			UI	[TPE1131] Our system has detected an error with the Unique Transmission ID of your Manifest file. Please review the UTID format outlined in Section 5. Correct any issues on the Manifest file, and try again.
TPE1132 (NEW-TY2018)	Request		A2A	Our system detected an error while validating the “ChecksumAugmentationNum” value in your transmission against the calculated value of the form data file attachment. Please review Publication 5258, Section 3.4.3, <i>Computing Checksum</i> . Correct the checksum value and retransmit.
			UI	[TPE1132] Our system detected an error while validating the “ChecksumAugmentationNum” value in your manifest file against the calculated value of the form data file. Please review Publication 5258, Section 3.4.3, <i>Computing Checksum</i> . Correct the checksum value and retransmit.
TPE1133 (NEW-TY2017)	Request	Unable to extract UserId from Manifest	A2A	Our system has detected an error with the UserId field of the ACASecurityHeader. Please verify that your A2A Client Application System ID (ASID) is included in the UserId field. For more information, please review the UserId guidelines outlined in Section 5. Correct any issues, and try again.
			UI	*Error not applicable to ISS-UI

<b>Fault Code</b>	<b>Service Leg</b>	<b>Reason</b>	<b>Channel</b>	<b>ISS Fault Message</b>
TPE1134 (NEW-TY2017)	Request	Unauthorized request	A2A	*Error not applicable to A2A
			UI	403 Static Error Page
TPE1135 (NEW-TY2017)	Request	Unauthorized request	A2A	*Error not applicable to A2A
			UI	[TPE1135] Our system has detected an issue with your request. Please return to the homepage and try again.
TPE1136 (NEW-TY2017)	Request	Unauthorized request	A2A	*Error not applicable to A2A
			UI	[TPE1136] Our system has detected an issue with your request. Please return to the homepage and try again.
TPE1137 (NEW-TY2017)	Request	Unauthorized request	A2A	*Error not applicable to A2A
			UI	[TPE1137] Our system has detected an issue with your request. Please return to the homepage and try again.
TPE1138 (NEW-TY2017)	Request	Unauthorized request	A2A	*Error not applicable to A2A
			UI	[TPE1138] Our system has detected an issue with your request. Please return to the homepage and try again.
TPE1139 (NEW-TY2017)	Request	Unable to process provided certificate	A2A	Our system has detected an issue with the transmission's certificate. Please check the request and try again.
			UI	*Error not applicable to ISS-UI
TPE1141 (NEW-TY2017)	Request	Invalid request	A2A	*Error not applicable to A2A
			UI	[TPE1141] Our system has detected an issue with your request. Please return to the homepage and try again.
TPE1201	Request	Attachment is malformed	A2A	The attachment was not formatted properly and/or cannot be interpreted. Please review the XML standards outlined in Section 3. Correct any issues, and try again.

Fault Code	Service Leg	Reason	Channel	ISS Fault Message
			UI	[TPE1201] Our system has detected a potential threat in the Form file and it cannot be transmitted. This may be due to malformed XML. Please review the XML standards outlined in Section 3. Correct any issues on the Form file, and try again.
TPE1203	Request	Potential security threat in attachment	A2A	Our system has detected a potential threat in the request message attachment. Please review the XML standards outlined in Section 3. Correct any issues, and try again.
			UI	[TPE1203] Our system has detected a potential threat in the Form file and it cannot be transmitted. Please review the XML standards outlined in Section 3. Correct any issues on the Form file, and try again.
TPE1204	Request	Potential security threat in attachment	A2A	Our system has detected a potential threat in the request message attachment. Please review the XML standards outlined in Section 3. Correct any issues, and try again.
			UI	[TPE1204] Our system has detected a potential threat in the Form file and it cannot be transmitted. Please review the XML standards outlined in Section 3. Correct any issues on the Form file, and try again.

Fault Code	Service Leg	Reason	Channel	ISS Fault Message
TPE1205	Request	Potential security threat in attachment	A2A	Our system has detected a potential threat in the request message attachment. Please review the XML standards outlined in Section 3. Correct any issues, and try again.
			UI	[TPE1205] Our system has detected a potential threat in the Form file and it cannot be transmitted. Please review the XML standards outlined in Section 3. Correct any issues on the Form file, and try again.
TPE1206	Request	Extra attachment(s)	A2A	The request message contains more than one attachment. Please review the transmission instructions outlined in Section 5 and resubmit with only one attachment.
			UI	*Error not applicable to ISS-UI
TPE1207	Request	Missing attachment(s)	A2A	The request message is missing an attachment. Please review the transmission instructions outlined in Section 5. Add an attachment to the request, and resubmit.
			UI	We are experiencing a technical issue [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.
TPE1208	Request	Failure UTF8-BOM Encoded in Attachment	A2A	Our system has detected UTF-8 BOM encoding in the Form file and cannot be interpreted. Please review the XML standards outlined in Section 10. Correct any issues, and try again.

Fault Code	Service Leg	Reason	Channel	ISS Fault Message
			UI	[TPE1208] Our system has detected UTF-8 BOM encoding in the Form file and cannot be interpreted. Please review the XML standards outlined in Section 10. Correct any issues on the Form file, and try again.
TPE2001	Response	Consumer is unreachable	A2A	Unable to deliver response message to service consumer.
			UI	*Error not applicable to ISS-UI
TPE2111	Response	Unable to parse Receipt ID from Receipt message using xPath	A2A	Parse Receipt ID from Response message using XPath.
			UI	We are experiencing a technical issue with the receipt [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.
TPE2112	Response	Unable to parse timestamp from Receipt message using xPath	A2A	Parse Timestamp from Response Message using XPath.
			UI	We are experiencing a technical issue with the receipt [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.
TPE2113	Response	Unable to parse UTID from Receipt message using xPath	A2A	Parse UTID from Response Message using XPath.
			UI	We are experiencing a technical issue with the receipt [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.
TPE2114	Response	Unable to parse Error Code from Receipt message using xPath	A2A	Parse Error Code from Response Message using XPath.
			UI	We are experiencing a technical issue with the receipt [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.
TPE2115	Response	Unable to parse Error Message from Receipt message using xPath	A2A	Parse Error Message from Response Message using XPath.
			UI	We are experiencing a technical issue with the receipt [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.

<b>Fault Code</b>	<b>Service Leg</b>	<b>Reason</b>	<b>Channel</b>	<b>ISS Fault Message</b>
TPE2201	Response	There is an excess number of attachments in the response	A2A	We are experiencing a technical issue. Please try your request again later. We apologize for the inconvenience.
			UI	We are experiencing a technical issue with the receipt [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.
TPE2202	Response	The attachment in the response exceeded maximum size limit	A2A	We are experiencing a technical issue. Please try your request again later. We apologize for the inconvenience.
			UI	We are experiencing a technical issue with the receipt [Error Code 6064]. Please try your request again later. We apologize for the inconvenience.

## Appendix A - Acronyms and Abbreviations

Accepted Acronym/Abbreviation	Term Name
A2A	Application to Application
ACA	Affordable Care Act
ACK	Acknowledgment
AIR	ACA Information Returns
CR	Change Request
EIN	Employer Identification Number
ELC	Enterprise Life Cycle
IEP	Integrated Enterprise Portal
MTOM	Message Transmission Optimization Mechanism
SOAP	Simple Object Access Protocol
TIN	Taxpayer Identification number
UI	User Interface
IRS	Internal Revenue Service
XML	Extensible Markup Language
SQL	Structured Query Language
MIME	Multipurpose Internet Mail Extensions