

# **G-Invoicing**

## **System Interface**

### **Specifications - Push**

A Guide to transmit, insert, and process IGT Buy/Sell 7600EZ  
data in the G-Invoicing Environment

**7600EZ**  
**Version 1.0.1**  
*July 2022*



# Table of Contents

## Contents

|   |           |
|---|-----------|
| <b>1. Introduction .....</b>                      | <b>3</b>  |
| 1.1. Purpose .....                                | 3         |
| 1.2. Scope .....                                  | 3         |
| 1.3. References .....                             | 3         |
| <b>2. Assumptions/Constraints .....</b>           | <b>3</b>  |
| 2.1. Assumptions .....                            | 3         |
| <b>3. Interface Mechanism .....</b>               | <b>3</b>  |
| 3.1. Physical Interface .....                     | 3         |
| 3.2. Protocol .....                               | 3         |
| 3.3. Supported Environments .....                 | 9         |
| <b>4. Interface Specification .....</b>           | <b>10</b> |
| 4.1. Processing Logic .....                       | 10        |
| 4.2. Business Rules .....                         | 11        |
| 4.2.1 Common Rules .....                          | 11        |
| 4.2.2 7600EZ Rules .....                          | 11        |
| <b>5 Error Specifications .....</b>               | <b>17</b> |
| <b>6 Security .....</b>                           | <b>18</b> |
| <b>7 Interface Integrity .....</b>                | <b>18</b> |
| 7.1 Treasury Web Application Infrastructure ..... | 18        |
| 7.2 Communication Channel .....                   | 18        |
| <b>8 Revision History .....</b>                   | <b>18</b> |

## 1. Introduction

### 1.1. Purpose

This artifact defines the interface specification to define the transmission of 7600EZ data from Federal Program Agency systems to the G-Invoicing application. It serves as an agreement between G-Invoicing, agencies with interfacing systems, their software provider development teams and Bureau of the Fiscal Service business owners, upon which the system-to-system interface will be based.

### 1.2. Scope

This artifact defines the G-Invoicing specifications to transmit, insert, and process IGT Buy/Sell 7600EZ data and the communication channel that carries these messages. The focus is on the specifications that must be mutually agreed upon by G-Invoicing and agencies with interfacing systems. The G-Invoicing team owns the maintenance of this document.

### 1.3. References

The artifacts listed below all are versioned to align with this specification and may be downloaded from the provided location. Check the Version History of related documents to ensure they are in alignment.

- 1.3.1** The Federal Intragovernmental Data Standards (FIDS) 7600EZ Data Elements  
[https://www.fiscal.treasury.gov/fsservices/gov/acctg/g\\_invoice/g\\_invoice\\_home.htm](https://www.fiscal.treasury.gov/fsservices/gov/acctg/g_invoice/g_invoice_home.htm)

## 2. Assumptions/Constraints

### 2.1. Assumptions

1. While this artifact represents an agreement by G-Invoicing, Federal Program Agencies and their software providers, it does not imply a release schedule or project plan. Those topics are described by other artifacts for the respective projects and are not referenced here.
2. The interface is limited to the transmission of 7600EZ data and associated attachments inbound from agencies with interfacing systems to G-Invoicing.

## 3. Interface Mechanism

### 3.1. Physical Interface

The G-Invoicing to agency system interface will communicate using HTTPS with 2-way TLS (Transport Layer Security) using a client certificate through the TWAI. The TWAI will employ a web service proxy to serve as a focal route for incoming web service requests so that the web service provider is only configured to receive requests from a single point of origination. The web service response is routed back on the same stream to the initial requestor.

### 3.2. Protocol

The G-Invoicing to agency system interface will employ a push/pull model utilizing RESTful Services with a JSON payload. All services below are referenced via URLs in the following format: <https://host-name:port/base-path/resource-path>

**3.2.1** Host names:

Production: ws.igt.fiscal.treasury.gov  
Quality Assurance Current: qa.ws.igt.fiscal.treasury.gov  
Quality Assurance Future: qaf.ws.igt.fiscal.treasury.gov  
Functional Test: ft.ws.igt.fiscal.treasury.gov

**3.2.2** Base Path: /ginv**3.2.3** Resource: /services

**Note:** G-Invoicing supports a one-to-many relationship between a Partner ID and a System ID whereby one Partner created and managed within a single agency account can represent multiple Systems spread across many agency accounts. Policy requires that at least one System ID must be created and managed in each agency account to push data. The Partner ID must be assigned a client certificate to access G-Invoicing.

Each System ID must be granted full access (by agency Master administrators) to push data for all documents residing in that agency account. Policy requires that at least one System ID is created and authorized, even in situations where the Partner is only accessing data in a single agency account. The assignment of an organizational group to a System ID implicitly assigns all descendent groups. There is no reason to explicitly assign all groups in an organization to a System ID.

**3.2.3.1** Resource: Create 7600EZ Invoice

| Component   | Detail / Description  |
|-------------|---|
| Path        | /ginv/services/v1_0/ez  |
| Method      | POST  |
| Description | Create a new 7600EZ Invoice.  |
| Example     | POST /ginv/services/v1_0/ez<br>Host: <a href="https://ws.igt.fiscal.treasury.gov">ws.igt.fiscal.treasury.gov</a>  |
| Parameters  | <u>Name</u> : Content-Type<br><u>Description</u> : Indicates the service client expects content in JSON format. No other format is currently supported.<br><u>Value</u> : application/json<br><u>Required</u> : true  |
|             | <u>Name</u> : Accept-Encoding<br><u>Description</u> : Allows the service client to indicate it supports compressing the response payload using gzip compression.<br><u>Value</u> : gzip, deflate<br><u>Required</u> : false (highly suggested: if not supplied, server will send back uncompressed response data resulting in a larger payload) |
|             | <u>Name</u> : Transfer-Encoding<br><u>Description</u> : The type of transformation that has been applied to the message body to safely transfer it between the sender and the recipient.<br><u>Value</u> : chunked<br><u>Required</u> : false   |

|                 |   |
|-----------------|---|
|                 | <u>Name:</u> Connection<br><u>Description:</u> Indicates the service client wants to use HTTP keep-alive to more efficiently make multiple requests.<br><u>Value:</u> keep-alive<br><u>Required:</u> false (highly suggested when making multiple calls. Failure to use keep-alive will slow concurrent calls and strain both the client and server). |
|                 | <u>Name:</u> SystemId<br><u>Description:</u> Identifies the system that is exchanging data with G-Invoicing.<br><u>In:</u> header<br><u>Type:</u> string [100]<br><u>Required:</u> true   |
|                 | <u>Name:</u> Agency-Tracking-Identifier<br><u>Description:</u> Unique identifier from agency system, optionally supplied in the request.<br><u>In:</u> header<br><u>Type:</u> string [50]<br><u>Required:</u> false   |
| <b>Consumes</b> | <u>Required:</u> application/json   |
| <b>Produces</b> | <u>Status Code:</u> 200<br><u>Description:</u> Successful call returns Call Detail and the newly created 7600EZ data.<br><u>Content Type:</u> application/json<br><u>Schema:</u> callDetail, 7600EZ   |

## 3.2.3.2 Resource: Reverse/Accept/Reject an existing 7600EZ

| Component          | Detail / Description  |
|--------------------|---|
| <b>Path</b>        | /ginv/services/v1_0/ez/   |
| <b>Method</b>      | POST  |
| <b>Description</b> | Response to an existing 7600EZ, which is referenced by passing the unique id in the body.<br><u>Servicing actions:</u> Reverse<br><u>Requesting actions:</u> Accept or Reject   |
| <b>Examples</b>    | POST /ginv/services/v1_0/ez/<br>Host: <a href="https://ws.igt.fiscal.treasury.gov">ws.igt.fiscal.treasury.gov</a>   |
| <b>Parameters</b>  | <u>Name:</u> Content-Type<br><u>Description:</u> Indicates the service client expects content in JSON format. No other format is currently supported.<br><u>Value:</u><br>application/json<br><u>Required:</u> true   |
|                    | <u>Name:</u> Accept-Encoding<br><u>Description:</u> Allows the service client to indicate it supports compressing the response payload using gzip compression.<br><u>Value:</u> gzip, deflate<br><u>Required:</u> false (highly suggested: if not supplied, server will send back uncompressed response data resulting in a larger payload) |

|                 |   |
|-----------------|---|
|                 | <u>Name:</u> Transfer-Encoding<br><u>Description:</u> The type of transformation that has been applied to the message body to safely transfer it between the sender and the recipient.<br><u>Value:</u> chunked<br><u>Required:</u> false   |
|                 | <u>Name:</u> Connection<br><u>Description:</u> Indicates the service client wants to use HTTP keep-alive to make multiple requests more efficiently.<br><u>Value:</u> keep-alive<br><u>Required:</u> false (highly suggested when making multiple calls. Failure to use keep-alive will slow concurrent calls and strain both the client and server). |
|                 | <u>Name:</u> SystemId<br><u>Description:</u> Identifies the system that is exchanging data with G-Invoicing.<br><u>In:</u> header<br><u>Type:</u> string [100]<br><u>Required:</u> true   |
|                 | <u>Name:</u> Agency-Tracking-Identifier<br><u>Description:</u> Unique identifier from agency system, optionally supplied in the request.<br><u>In:</u> header<br><u>Type:</u> string [50]<br><u>Required:</u> false   |
| <b>Consumes</b> | <u>Required:</u><br>application/json  |
| <b>Produces</b> | <u>Status Code:</u> 200<br><u>Description:</u> Successful call returns Call Detail and the newly updated Order data.<br><u>Content Type:</u> application/json<br><u>Schema:</u> callDetail, 7600EZ  |

## 3.2.3.1 Resource: Delete an existing 7600EZ

| Component          | Detail / Description  |
|--------------------|---|
| <b>Path</b>        | /ginv/services/v1_0/ez/{Id}   |
| <b>Method</b>      | DELETE  |
| <b>Description</b> | Deletes an existing 7600EZ by referencing a unique id in the path.  |
| <b>Examples</b>    | DELETE /ginv/services/v1_0/ez/E2201-017-021-092837<br>Host: <a href="https://ws.igt.fiscal.treasury.gov">ws.igt.fiscal.treasury.gov</a>   |
| <b>Parameters</b>  | <u>Name:</u> Content-Type<br><u>Description:</u> Indicates the service client expects content in JSON format. No other format is currently supported.<br><u>Value:</u><br>application/json<br><u>Required:</u> true   |
|                    | <u>Name:</u> Accept-Encoding<br><u>Description:</u> Allows the service client to indicate it supports compressing the response payload using gzip compression.<br><u>Value:</u> gzip, deflate<br><u>Required:</u> false (highly suggested: if not supplied, server will send back uncompressed response data resulting in a larger payload) |

|                 |   |
|-----------------|---|
|                 | <u>Name:</u> Transfer-Encoding<br><u>Description:</u> The type of transformation that has been applied to the message body to safely transfer it between the sender and the recipient.<br><u>Value:</u> chunked<br><u>Required:</u> false   |
|                 | <u>Name:</u> Connection<br><u>Description:</u> Indicates the service client wants to use HTTP keep-alive to make multiple requests more efficiently.<br><u>Value:</u> keep-alive<br><u>Required:</u> false (highly suggested when making multiple calls. Failure to use keep-alive will slow concurrent calls and strain both the client and server). |
|                 | <u>Name:</u> Id<br><u>Description:</u> A Unique ID referencing an individual 7600EZ.<br><u>In:</u> path (required)<br><u>Type:</u> string [20]<br><u>Required:</u> true   |
|                 | <u>Name:</u> SystemId<br><u>Description:</u> Identifies the system that is exchanging data with G-Invoicing.<br><u>In:</u> header<br><u>Type:</u> string [100]<br><u>Required:</u> true   |
|                 | <u>Name:</u> Agency-Tracking-Identifier<br><u>Description:</u> Unique identifier from agency system, optionally supplied in the request.<br><u>In:</u> header<br><u>Type:</u> string [50]<br><u>Required:</u> false   |
| <b>Consumes</b> | <u>Required:</u><br>application/json  |
| <b>Produces</b> | <u>Status Code:</u> 200<br><u>Description:</u> Successful call returns Call Detail and the newly updated Order data.<br><u>Content Type:</u> application/json<br><u>Schema:</u> callDetail, 7600EZ  |

## 3.2.3.2 Resource: New Attachment

| Component          | Detail / Description  |
|--------------------|---|
| <b>Path</b>        | /ginv/services/v1_0/ez/attachment/  |
| <b>Method</b>      | POST  |
| <b>Description</b> | Creates a new Attachment in the system.   |
| <b>Example</b>     | POST /ginv/services/v1_0/ez/attachment<br>Host: <a href="https://ws.igt.fiscal.treasury.gov">ws.igt.fiscal.treasury.gov</a>   |
| <b>Parameters</b>  | <u>Name:</u> Accept-Encoding<br><u>Description:</u> Allows the service client to indicate it supports compressing the response payload using gzip compression.<br><u>Value:</u> gzip, deflate<br><u>Required:</u> false (highly suggested: if not supplied, server will send back uncompressed response data resulting in a larger payload) |

|                 |   |
|-----------------|---|
|                 | <u>Name:</u> Transfer-Encoding<br><u>Description:</u> The type of transformation that has been applied to the message body to safely transfer it between the sender and the recipient.<br><u>Value:</u> chunked<br><u>Required:</u> false   |
|                 | <u>Name:</u> Content-Type<br><u>Description:</u> The MIME type of the body of the request<br><u>Value:</u> multipart/form-data; boundary=<br><u>Required:</u> true<br><u>References:</u> <a href="#">RFC 7578</a>   |
|                 | <u>Name:</u> Connection<br><u>Description:</u> Indicates the service client wants to use HTTP keep-alive to make multiple requests more efficiently.<br><u>Value:</u> keep-alive<br><u>Required:</u> false (highly suggested when making multiple calls. Failure to use keep-alive will slow concurrent calls and strain both the client and server). |
|                 | <u>Name:</u> SystemId<br><u>Description:</u> Identifies the system that is exchanging data with G-Invoicing.<br><u>In:</u> header<br><u>Type:</u> string [100]<br><u>Required:</u> true   |
|                 | <u>Name:</u> Agency-Tracking-Identifier<br><u>Description:</u> Unique identifier from agency system, optionally supplied in the request.<br><u>In:</u> header<br><u>Type:</u> string [50]<br><u>Required:</u> false   |
| <b>Consumes</b> | <u>Required:</u> application/json<br><u>Optional:</u> application/octet-stream<br><u>Schema:</u> EZ Attachment Push   |
| <b>Produces</b> | <u>Status Code:</u> 200<br><u>Description:</u> Successful call returns Call Detail and the Attachment Response data.<br><u>Content Type:</u> application/json<br><u>Schema:</u> callDetail, EZ Attachment Response  |

## 3.2.3.3 Resource: Delete Attachment

| Component          | Detail / Description   |
|--------------------|--|
| <b>Path</b>        | /ginv/services/v1_0/ez/attachment/{Id}   |
| <b>Method</b>      | DELETE   |
| <b>Description</b> | Deletes an Attachment from the System.   |
| <b>Example</b>     | DELETE /ginv/services/v1_0/ez/attachment/1234567890<br>Host: <a href="https://ws.igt.fiscal.treasury.gov">ws.igt.fiscal.treasury.gov</a>   |
| <b>Parameters</b>  | <u>Name:</u> Content-Type<br><u>Description:</u> Indicates the service client expects content in JSON format. No other format is currently supported.<br><u>Value:</u> application/json<br><u>Required:</u> true |



|                 |  |
|-----------------|--|
|                 | <p><u>Name:</u> Accept-Encoding</p> <p><u>Description:</u> Allows the service client to indicate it supports compressing the response payload using gzip compression.</p> <p><u>Value:</u> gzip, deflate</p> <p><u>Required:</u> false (highly suggested: if not supplied, server will send back uncompressed response data resulting in a larger payload)</p>           |
|                 | <p><u>Name:</u> Transfer-Encoding</p> <p><u>Description:</u> The type of transformation that has been applied to the message body in order to safely transfer it between the sender and the recipient.</p> <p><u>Value:</u> chunked</p> <p><u>Required:</u> false</p>  |
|                 | <p><u>Name:</u> Connection</p> <p><u>Description:</u> Indicates the service client wants to use HTTP keep-alive to more efficiently make multiple requests.</p> <p><u>Value:</u> keep-alive</p> <p><u>Required:</u> false (highly suggested when making multiple calls. Failure to use keep-alive will slow concurrent calls and strain both the client and server).</p> |
|                 | <p><u>Name:</u> Id</p> <p><u>Description:</u> A Unique ID referencing an individual Attachment.</p> <p><u>In:</u> path (required)</p> <p><u>Type:</u> string [30]</p> <p><u>Required:</u> true</p>   |
|                 | <p><u>Name:</u> systemId</p> <p><u>Description:</u> Identifies the system that is exchanging data with G-Invoicing.</p> <p><u>In:</u> header</p> <p><u>Type:</u> string [100]<u>Required:</u> true</p>   |
|                 | <p><u>Name:</u> Agency-Tracking-Identifier</p> <p><u>Description:</u> Unique identifier from agency system, optionally supplied in the request.</p> <p><u>In:</u> header</p> <p><u>Type:</u> string [50]</p> <p><u>Required:</u> false</p>   |
| <b>Consumes</b> | <u>Required:</u> application/json  |
| <b>Produces</b> | <p><u>Status Code:</u> 200</p> <p><u>Description:</u> Successful call returns Call Detail data.</p> <p><u>Content Type:</u> application/json</p> <p><u>Schema:</u> callDetail</p>  |

### 3.3 Supported Environments

The G-Invoicing application operates within the Treasury Web Application Infrastructure (TWAI) environments. Interface testing will take place in G-Invoicing's Quality Assurance environments. G-Invoicing operates both Production and Contingency environments.

Fail-over by G-Invoicing from Production to Contingency environments will be transparent.

**Table 1: Supported Environments**

| G-Invoicing TWA                   | Use  |
|-----------------------------------|--|
| Functional Test Future (FTF)      | Future view of Production (new release)                                    |
| Quality Assurance - Future (QAF)  | Future view of Production (new release) – used for UAT & interface testing |
| Quality Assurance - Current (QAC) | Current view of Production environment – used for agency testing.          |
| Production                        | Production   |

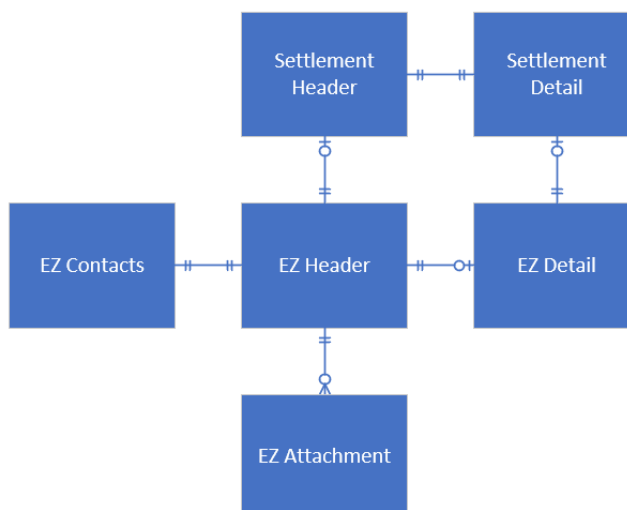
## 4. Interface Specification

### 4.1. Processing Logic

#### 4.1.1 7600EZ

It is assumed that Partner 1 is the Servicing Agency for 7600EZ, and Partner 2 is the Requesting Agency. The Servicing Agency can create new 7600EZ Invoice or reference an existing 7600EZ Invoice to reverse or delete. The Requesting Agency can respond with an Accept or Reject transaction, referencing the Servicing Agency's Invoice, but no action by the Requesting Agency is required. The Requesting Agency can also delete an Accept or Reject in certain circumstances. There are validation rules described below in Business Rules (section 4.2) and in the Federal Intragovernmental Data Standards (FIDS) that outline the requirements for creating a new 7600EZ Invoice and approving, and rejecting, reversing, or deleting an 7600EZ invoice.

Two types of 7600EZ transactions can be submitted by Partner 1: Invoice (011) and Reversed (324), which both transfer funds. Partner 2 can also submit two types of 7600EZ transactions: Accepted (201) and Rejected (598). Rejected (598) transactions will transfer funds (back) if submitted before the expiration of the Rejection window of the referenced 7600EZ transaction. If the Rejected (598) transaction is submitted after the expiration of the Rejection window, then the Rejected (598) will be Informational (i.e., INF status) and won't transfer funds. All Accepted (201) transactions are Informational and won't affect funds transfer.

**Diagram 1: 7600EZ Logical Data Model**

## Business Rules

### 4.1.2 Common Rules

- 4.1.2.1 7600EZ transactions do not reference a G-Invoicing Order, but they do reference either a GT&C or a 7600EZ Invoice (011).
- 4.1.2.2 Referenced GT&C's must be in an Open status and allow 7600EZ transactions, meaning that the Business Application (BizApp) selected on the GT&C aligns with 7600EZ.  
  
*Note: BizApp, in conjunction with Feature Management, control trading partner access to 7600EZ functionality by verifying that both sides of the GT&C can transact using 7600EZ.*
- 4.1.2.3 The agency system (aka, client) must be granted permissions (aka, user role and group assignment) to transmit EZ data for processing.
- 4.1.2.4 The Servicing Agency system must have at least view access to the referenced GT&C and be assigned either the Servicing EZ Manager or Servicing EZ Supervising Manager role for the group on the request to create a 7600EZ Invoice (011), submit a Reversed (324), or Delete a 7600EZ Invoice.
- 4.1.2.5 The Requesting Agency system must be assigned a Requesting EZ Manager or Requesting EZ Supervising Manager role (with the appropriate group assignment) to submit an Accepted (201) or Rejected (598) 7600EZ transactions.
- 4.1.2.6 G-Invoicing uses both date and time when validating and persisting data through the application program interface (API) & user interface (UI). Through the API we allow the Servicing Agency system to send a specific time with their body request. G-Invoicing uses both the date and time when validating Performance Date. Business rules on Performance Date are discussed later in this document.
- 4.1.2.7 Attachments may be added to and deleted from existing 7600EZ using the Attachment service.
- 4.1.2.8 An attachment may only be deleted by that trading partner that added the attachment.

### 4.1.3 7600EZ Rules

#### 7600EZ Type Rules

- 4.1.3.1 The Servicing Agency can submit transaction types of Invoice (011) and Reversed (324).
- 4.1.3.2 The Requesting Agency can submit transaction types of Rejected (598) and Accepted (201).
- 4.1.3.3 Invoice (011) transactions must reference a GT&C when sending a request with a POST method.
- 4.1.3.4 The Servicing Agency may submit a request with a DELETE method, but it can only reference an Invoice (011) with a status of Pending (PND). This changes

the Invoice (011) status from Pending (PND) to Deleted (XXX).

- The Servicing Agency cannot delete an Invoice (011) that is in Settled (STL) status.

4.1.3.5 The Requesting Agency may submit a request with a DELETE method, but it can only reference a Rejected (598) in Informational (INF) status or Accepted (201). This changes the status from Informational (INF) to Deleted (XXX).

- The Requesting Agency cannot delete a Rejected (598) that is in Settled (STL) status.

4.1.3.6 Reversed (324), Rejected (598) and Accepted (201) must always reference an existing Invoice (011).

- All referencing transaction are for the full Performance Amount of the referenced Invoice (011).
- Example: Servicing Agency submits an Invoice (011) for \$100 which is Settled (STL). If the Servicing Agency submits a Reversed (324) transaction, it would be for the full \$100. Same if the Requesting Agency either submits a Rejected (598) or Accepted (201), it would be for the full \$100 Performance Amount. 7600EZ doesn't allow partial adjustments, rejections, or acceptance.

4.1.3.7 The Requesting Agency may submit a Rejected (598) within an Invoice (011) Rejection window. When this occurs the Rejected (598) status will be Pending (PND) until Settled (STL). This transaction will move funds back to the Requesting Agency.

4.1.3.8 The Servicing Agency may submit a Reversed (324) transaction after the referenced Invoice (011) is Settled (i.e., status is STL) if the following has not occurred:

- The Requesting Agency has not submitted a Rejected (598) within the Rejection window.

4.1.3.9 The Requesting Agency may submit a Rejected (598) or Accepted (201) at any time, even before the Invoice (011) has Settled (STL) unless the Servicing Agency has already submitted a referencing Reversed (324) to the Invoice (011).

- If the Invoice (011) is in Pending (PND) status (i.e., the Invoice's Performance Date is in the future and Settlement has not occurred) when the Requesting Agency submits a Rejected (598) it will cause the Invoice (011) to move from Pending (PND) to Informational (INF) status. The Rejected (598) will be in Informational (INF) status, as it won't affect funds transfer.

4.1.3.10 The Requesting and Servicing Agency can't reference a EZ transaction that is in Deleted (XXX) status with another EZ transaction but can view or pull transactions that are in Deleted (XXX) status.

**7600EZ Date Rules**

- 4.1.3.11 7600EZ Performance Date must always fall within the GT&C Start and End dates.
- 4.1.3.12 All 7600EZ transactions must always be within an open Accounting Period and depending on when a 7600EZ transaction is received by G-Invoicing this will determine which Accounting Period(s) are available at that date/time. The Performance Date doesn't have to be within the provided Accounting Period and in many cases with past dating a Performance Date it will not.
- 4.1.3.13 The Servicing Agency may record an Invoice (011) with a future Performance Date, provided the date falls within the current open Accounting Period.
- Example: On May 27 the Servicing Agency reports Invoice (011) with a Performance Date of May 30. This is allowed because the May period is open. If on May 27 the Servicing Agency submits a June 15 Performance Date, that transaction would result in an error and would not be created, because the June Accounting Period is not open.
- 4.1.3.14 The Servicing Agency may record an Invoice (011) with a past Performance Date; although, the Accounting Period submitted with the transaction must be an open period.
- Example: On May 2 the Servicing Agency reports an Invoice (011) with a Performance Date of February 10. This is allowed, but the Accounting Period submitted with the transaction must be either the April or May period as both are open on the May 2 Transaction Date (when the transaction was created in G-Invoicing).
- 4.1.3.15 The Servicing Agency can Delete an Invoice (011) with a future Performance Date while the Invoice (011) is in Pending (PND) status.
- 4.1.3.16 The Servicing Agency cannot submit a Reversed (324) with a future Performance Date.
- 4.1.3.17 The Servicing Agency may submit a Reversed (324) with a past Performance Date, but it must not be before the Invoice (011) Performance Date.
- The Accounting Period submitted with the Reversed (324) must be an open Accounting Period.
  - Example: On March 20 the Servicing Agency submits an Invoice (011) with a Performance Date of February 10. On May 20 the Servicing Agency submits a Reversed (324) with a Performance Date of April 15. This is allowed, but the Accounting Period submitted with the Reversed (324) must be for the May Accounting Period, which is the only open Accounting Period when the Reversed (324) is submitted on May 20.
- 4.1.3.18 The Requesting Agency is not allowed to submit a future dated 7600EZ transaction.
- 4.1.3.19 The Requesting Agency may reference an Invoice (011) when submitting either an Accepted (201) or Rejected (598) with a Performance Date in the past.
- Example: On June 10 the Servicing Agency reports an Invoice (011) with a Performance Date of June 5. On June 15, the Requesting Agency may reference the Invoice (011) with a Performance Date between June 5 and June 15.

- The Accounting Period submitted with the Accepted (201) or Rejected (598) must be an open Accounting Period.

### **7600EZ Settlement Rules**

- 4.1.3.20 The Requesting Agency Accepted (201) is always Informational (INF), which means it will not result in settlement or funds transfer.
- 4.1.3.21 7600EZ transactions for which settlement has occurred are set to Settled (STL) status.
- 4.1.3.22 An Invoice (011) with a future Performance Date will be Settled (STL) when that Performance Date occurs.
- An Invoice (011) to be Settled (STL) is set to Pending (PND) status.
- 4.1.3.23 The Requesting Agency Rejected (598) will result in settlement or funds transfer when submitted within the Rejection window of the Invoice (011). If the Rejected (598) is submitted outside the Rejection window, then it will be Informational (INF).
- The Rejection window is determined by the 7600EZ Business Application (BizApp) assigned to the referenced GT&C.
  - Example: The Rejection window for the 'EZ 10k' BizApp is 30 calendar days, and BizApp 'EZ 10k' is assigned to the referenced GT&C. The Servicing Agency submits an Invoice (011) on December 5 with a Performance Date of December 10, the Rejection window for the Invoice (011) will end on January 9 (30 days after December 10). So, if the Requesting Agency submits a Rejected (598) on or before January 9 then the Rejected (598) will result in a Settled (STL). (i.e., It will generate a funds transfer to reverse the Invoice settlement that occurred on December 10).
- 4.1.3.24 7600EZ transactions for which settlement has failed is set to 'ERR' (error) status.
- Errors will be corrected by the G-Invoicing Production Support team (if possible, not by an agency user or agency system).

### **4.3.1 Attachment Push – Data Elements**

The data elements in Table 2 below must be submitted with each New Attachment request.

**Table 2: Attachment Push Data Elements**

| <b>Familiar Name</b>  | <b>JSON Attributes</b> | <b>Definition</b>  | <b>Constraints</b>                                      | <b>Optionality</b> |
|-----------------------|------------------------|--|---|--------------------|
| Attachment File Name  | "fileNm"               | The actual name of the attachment file.  | String [1, 132]<br>Maximum length = 132<br>String UTF-8 | Required           |
| Attachment File Alias | "fileNameAlias"        | Descriptive name for an attachment. Different from the name assigned to the file itself. | String [0,132]<br>Maximum length = 132<br>String UTF-8  | Optional           |
| Document Number       | "documentNumber"       | Unique identifier for a document which the attachment will be associated.                | String [1, 20]<br>Maximum length = 20<br>String UTF-8   | Required           |

|                    |                    |  |  |          |
|--------------------|--------------------|--|--|----------|
| Buy Sell Indicator | "buySellIndicator" | Indicates whether the submitter of the attachment is the buyer (Requesting) or seller (Servicing). | String [1,1]<br>Maximum length = 1<br>String UTF-8<br><br>Values: "R" – Requesting,<br>"S" – Servicing<br><br><b>Note:</b> G-Invoicing will verify that the user has update privileges based on the submitted Buy Sell Indicator and will reject the request if they do not. | Required |
|--------------------|--------------------|--|--|----------|

*Note: The attachment service and supporting schema is generic, but the path name differentiates the type of document targeted for the attachment.*

#### 4.3.2 Detail Response – Data Elements

The data elements in Table 3 below will be returned in the body of every EZ detail response generated by G-Invoicing.

**Table 3: Call Detail Response Data Elements**

| Familiar Name                   | JSON Attributes  | Definition  | Constraints   | Optionality |
|---------------------------------|------------------|---|---|-------------|
| Agency Partner ID               | "partnerId"      | Identifies the intended recipient of the transmission.                                | String<br>[100]<br>Minimum length = 0<br>Maximum length = 100<br>String UTF-8 | Required    |
| Agency System ID                | "systemId"       | Identifies the system that is exchanging data with G-Invoicing.                       | String<br>[100]<br>Minimum length = 1<br>Maximum length = 100<br>String UTF-8 | Required    |
| Agency Tracking Identifier      | "requestId"      | Unique identifier optionally supplied in the request and echoed back in the response. | String<br>[50]<br>Minimum length = 0<br>Maximum length = 50<br>String UTF-8   | Optional    |
| G-Invoicing Tracking Identifier | "ginvTrackingID" | Unique tracking identifier, generated by G-Invoicing.                                 | String<br>[50]<br>Minimum length = 0<br>Maximum length = 50<br>String UTF-8   | Required    |
| Environment                     | "environment"    | Describes the environment in which the system interface resides.                      | String<br>[30]<br>Minimum length = 0<br>Maximum length = 30<br>String UTF-    | Required    |



|              |               |   |  |          |
|--------------|---------------|---|--|----------|
|              |               |   | 8  |          |
| Request Type | "requestType" | Type of request that was submitted to G-Invoicing by the agency system. | String<br>[30]<br>Minimum length = 0<br>Maximum length = 30<br>String UTF-8<br>Values: 7600EZ Create, 7600EZ Delete, Attachment Create, Attachment Delete,<br><b>Note:</b> Values are derived from the service that is being accessed. | Required |
| Record Count | "recordCount" | The total number of records in the payload.                             | Integer  | Required |

### 4.3.3 Attachment Response – Data Elements

The data elements in Table 4 below will be returned in the body of every attachment response generated by G-Invoicing.

**Table 4: Attachment Response Data Elements**

| Familiar Name         | JSON Attributes  | Definition   | Constraints  | Optionality |
|-----------------------|------------------|--|--|-------------|
| Attachment File Name  | "fileNm"         | The actual name of the attachment file.  | String [1, 132] Maximum length = 132String UTF-8   | Required    |
| Attachment File Alias | "fileNameAlias"  | Descriptive name for an attachment. Different from the name assigned to the file itself.         | String [0,132] Maximum length = 132String UTF-8  | Optional    |
| Attachment ID         | "idd"            | Unique identifier for an attachment.   | Integer<br>Maximum length = 30   | Required    |
| Attachment Updated By | "createUsr"      | The user's name or partner (Buyer or Seller) that uploaded the attachment                        | String [0,100] Maximum length = 100String UTF-8  | Required    |
| Attachment Date Time  | "uploadDateTime" | The time and date the file was uploaded into G-Invoicing.  | DateTime --- Format: YYYY-MM-DDThh:mm:ss.SSS+ -00:00 All time should be specified in local time zone with time zoneoffset from UTC in hours and minutes ahead (+) or behind (-) UTC. | Required    |
| File Size             | "fileSize"       | The size of the attachment expressed in kilobytes (kB).  | Integer<br>Minimum length = 1<br>Maximum length = 8  | Required    |
| Document URL          | "url"            | The URL that will be used in a subsequent request by the agency system to retrieve the document. | String [0, 4000] Maximum length = 4000String UTF-8   | Required    |



## 5 Error Specifications

Standard web service faults are generated for exceptions that can cause the request to not be processed. If the agency system cannot be authenticated or authorized, then a fault is returned. If the requested resource is unavailable, then a fault will be thrown. All services may return the following HTTP status codes along with variable error message text describing the error(s) in the response.

| Error ID | HTTP Status Code   | Example  |
|----------|--|--|
| 1        | 400 – Bad Request<br>ValidationFailedException<br><b>Note:</b> Message text included in the "errors" element will vary depending on the error condition. | <pre>{   "callDetail": {     "environment": "Production",     "recordCount": "1"   },   "errors": [     {       "code": "400",       "message": "EZ record not found"     }   ] }</pre>  |
| 2        | 403 – Unauthorized<br>AccessDeniedException<br><b>Note:</b> Message text included in the "errors" element will vary depending on the error condition.    | <pre>{   "callDetail": {     "environment": "Production",     "recordCount": "1"   },   "errors": [     {       "code": "403",       "message": "No authorized user found for partner: partnerId, system: systemId."     }   ] }</pre> |
| 3        | 500 – Internal Server Error<br>ServerException<br><b>Note:</b> Message text included in the "errors" element will vary depending on the error condition. | <pre>{   "callDetail": {     "environment": "Production",     "recordCount": "1"   },   "errors": [     {       "code": "500",       "message": "An unexpected error was encountered.."     }   ] }</pre>                              |

## 6 Security

The TWAI will accept web service traffic, perform certificate-based authentication against security policies, and route the requests to G-Invoicing. Separate certificates are needed for test and production environments.

No Personally Identifiable Information (PII) is being transported by this system interface. There is no risk that this interface will allow additional access to G-Invoicing data.

The Department of Defense has rated information contained in G-Invoicing as Mission Assurance Category III. The MAC III rating is for systems handling information that is necessary to conduct day-to-day business, but does not materially affect support to deployed or contingency forces in the short term. The consequences of loss of integrity or availability can be tolerated or overcome without significant impacts on mission effectiveness or operational readiness. The consequences could include the delay or degradation of services or commodities enabling routine activities. Mission Assurance Category III systems require protective measures, techniques or procedures generally commensurate with commercial best practices.

## 7 Interface Integrity

### 7.1 Treasury Web Application Infrastructure

TWAI security infrastructure, policies and procedures guarantee that only authenticated and authorized entities are permitted access to the G-Invoicing application and its assets. Virus detection, intrusion detection, and network and infrastructure monitoring software and hardware are provided by and operated in the TWAI.

### 7.2 Communication Channel

Adhere to the Guidelines for protecting sensitive data during electronic dissemination across networks as stated in the NIST Special Publication (SP) 800-52 (rev 1), Selection, Configuration, and Use of Transport Layer Security (TLS) Implementations.

Meet security requirements for NIST Special Publication (SP) 800-53 (rev 4), Recommended Security Controls for Federal Information Systems, and other applicable guidance, such as Treasury Directive Publication (TDP) 85-01.

## 8 Revision History

| Vers. Num. | Date of Change | G-Inv Rel. | Change/Revision Description  | Page/Section Affected |
|------------|----------------|------------|--|-----------------------|
| 0.1        | 12/15/21       | x.x        | Initial Draft  | All                   |
| 0.2        | 01/06/22       | x.x        | Updated 4.2 Business Rules section to add deleting additional EZ types.                | 4.2                   |
| 0.3        | 01/13/22       | x.x        | Added rules on referencing transaction's Performance Date on past/future transactions. | 4.2                   |
| 1.0        | 01/28/22       | x.x        | First published version  | All                   |
| 1.0.1      | 07/01/22       | x.x        | Replaced mention of Performance roles  | 4.1.2, 4.3.1, 4.3.3   |



|  |  |  |  |  |
|--|--|--|--|--|
|  |  |  | with EZ roles<br>Updated JSON property names |  |
|--|--|--|--|--|