

**Ticket and Delivery Information**

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# Introduction

Georgia 811 is migrating to a new notification system. We will be migrating from EDEN to a system called GeoCall, which is used by many other 811 centers, including several surrounding states such as Tennessee, Alabama, and South Carolina.

This document explains the new ticket types you will be receiving from Georgia 811, as well as information on how will be transmitting them.

# Tickets and Notifications

Georgia 811 delivers tickets to members for several different types of projects. To accommodate this, and to account for different types of service areas, we have created different ticket types to communicate the appropriate information needed to satisfy the locate request.

Additionally, Georgia 811 delivers Notifications as well, which include Emergency Notifications and Damage Notifications. Notifications are delivered in the same manner as Tickets, but do not require Positive Response.

## High-voltage Safety Act

Our previous system identified service areas as overhead, underground, or both, and sent the same ticket to each member based on that type. For the new system, this has been changed to include a new ticket type for overhead protection.

## Insufficient Tickets

Insufficient tickets will not be available in GeoCall. Georgia 811 will no longer be taking this type of request.

## Ticket Numbering

Georgia 811 tickets are numbered with a date code, a hyphen, and then a serial number. The date code is YYMMDD, and the serial number is a six-digit serial number. So, a GeoCall ticket number would look like 200218-001001 (for a ticket created on February 18, 2020).

## Ticket Types

GeoCall supports the following ticket types:

**Normal** – Tickets for regular 30 day locate requests

**Overhead** – Tickets for overhead protection

**Design** – Tickets for design requests

**Cancel** – When a cancel request is received from the excavator, a Cancel ticket will be issued doing the following:

* Add system responses (see below) to the original ticket, indicating that the request has been canceled, and the original notice will not require a response.
* Send the Cancel ticket to all members. This will have its own ticket number and will reference the ticket it is canceling. No response is needed for the cancel ticket.

**Large Project Meeting** – Meeting Ticket for a large project

**Large Project Excavation** – Ticket for Large Project Excavation, which will have its own ticket number

## Notification Types

**Emergency Notification** – Notifications *reporting* emergency excavations.

**Damage Notification** – Notifications *reporting* damages.

# Response Codes

## Positive Response Codes

GeoCall will use the same response codes as EDEN currently does, so you will respond to tickets using the same codes, such as 1A (marked).

## System Responses

To support other functionality, such as Additional Requests, GeoCall will also add System Responses to indicate a change on the ticket. For instance, a request to re-mark the dig site because weather washed away markings would add the **AR03** code, and further information would be available in the comment of that system response. This will be visible on the PRIS history of the ticket, which will provide greater context about what has happened with a ticket. This example might look as follows (Note the latest response is always at the top, so this is sorted from most recent to the oldest response):

|  |  |  |
| --- | --- | --- |
| 2/19/2020 09:40 | 1A | Marked |
| 2/18/2020 14:00 | AR03 | Facility markings no longer visible, please re-mark |
| 2/18/2020 10:01 | 1A | Marked |

System Responses are communications from the center to the member. Most system codes (such as all the AR system codes) resend the ticket with the with the Last Response information filled out in whatever ticket format the member is set to receive. Resending the ticket with the Last Response provides the context (ticket information) for the communication from the center.

Positive Responses are communications from the member to the center, and are posted to the ticket as they come in. These do not generate a resend of the ticket.

The following is the full list of Positive Response Codes and System Codes (at the bottom, in blue).

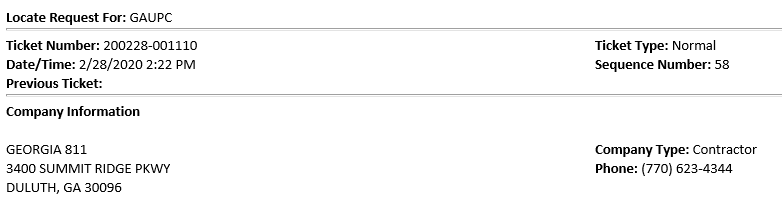
|  |  |
| --- | --- |
| **Code** | **Description** |
| 1A | Marked |
| 1B | Marked: High profile utility in conflict. |
| 1C | Marked: Permanent Marker Present. |
| 1D | Marked: Ticket should have been white-lined but was not. |
| 2B | Marked with conditions: Privately owned facilities on property. Excavator needs to contact the private facility owner to determine how facilities will be located. If someone is needed to locate private utility lines, locators listings may be found in the yellow pages under Utilities. |
| 3A | Unmarked: Locate technician could not gain access to complete the request. Locator will contact excavator. |
| 3B | Unmarked : Incorrect address information; contact UPC to obtain a new ticket. |
| 3H | Unmarked: Privately owned facilities on property. Excavator needs to contact the private facility owner to determine how facilities will be located. If someone is needed to locate private utility lines, locators listings may be found in the yellow pages under Utilities. |
| 3I | Unmarked: Marking instructions unclear. Locator will contact excavator. |
| 3J | Unmarked: Extraordinary circumstances exist, contact the utility owner/operator directly for details. |
| 3K | Unmarked: Not service provider for this location. Served by another provider. |
| 3M | Unmarked: Late, Weather conditions - Contact utility owner/operator for further information. |
| 3N | Unmarked: Late. |
| 4A | Clear: No facilities |
| 4B | Clear: 100% overhead facilities. |
| 5 | No conflict, utility is outside of requested work site. |
| 6 | Excavator is contractor for facility owner. Locate required prior to excavation per contractual agreement. |
| 7 | Facility owner/operator refuses to locate. This is a violation of the statute. |
| 8A | Sewer Laterals: Marked |
| 8B | Sewer Laterals: Marked with exceptions - Permanent Marker Present |
| 8C | Sewer Laterals: Unmarked - Un-locatable - Triangular green mark points to address or addresses in question. |
| 8D | Sewer facilities marked and sewer laterals unmarked: Sewer facility owner/operator has transmitted or mailed copy their best available sewer lateral records to the excavator. |
| 8E | Sewer facilities marked and sewer laterals unmarked: This utility member is a local government that receives less than 50 requests per year. Please contact this sewer operator directly for further instructions concerning the sewer laterals. |
| 8F | Sewer facilities have been marked and portions of sewer laterals present have been marked with or without exception and/or with green triangles.  Portions are unmarked. Sewer facility owner operator will contact the excavator concerning unmarked portions in accordance with 8D or 8G. |
| 8G | Sewer facilities marked and sewer laterals unmarked.  Sewer facility owner/operator has scheduled an onsite meeting with the excavator. |
| 9A | Design Locates: Marked |
| 9B | Design Locates: Marked with exceptions - Permanent Marker Present |
| 9C | Design Locates: Unmarked - Contact Facility Owner/Operator for copy of drawings or other records. |
| 9D | Design Locates: Clear, No Facilities |
| 10A | Large Project: Meeting Date/Time Accepted |
| 10B | Large Project: Meeting Date/Time Rejected |
| 10C | Large Project: Agree to treat as a Large Project. Agreement signed. |
| 10D | Large Project: Disagree to treat as a Large Project - will mark in accordance with 25-9-6. |
| 10E | Large Project: Will not attend meeting - Not service provider for this location. |
| 10F | Large Project: Will not attend meeting - Clear, no facilities |
| 10G | Large Project: Not service provider for this location |
| 10H | Large Project: Clear, no facilities |
| 10I | Large Project: Deviation to marking plan acknowledged and marked as requested. |
| 10J | Large Project: Deviation to marking plan acknowledged but not marked as requested. Locator will contact excavator. |
| LP01 | Large Project: mark as agreed |
| LP02 | Large Project: mark in accordance with 25-9-6 (first)\* |
| LP03 | Large Project: mark in accordance with 25-9-6 (second) \* |
| LP04 | Large Project: mark in accordance with 25-9-6 (third) \* |
| LP05 | Large Project: not a service provider |
| LP06 | Large Project: clear no facilities |
| AR01 | Excavator has requested explosives/blasting, please re-mark within 48 hours \* |
| AR02 | Dispute Member response \* |
| AR03 | Facility markings no longer visible, please re-mark \* |
| AR04 | Member missing from ticket \* |
| AR05 | Other Request \* |
| AR06 | Large Project: Change to meeting location or time\* |
| AR07 | Large Project: Deviation to marking agreement\* |
| AR08 | Member Not Responded\* |
| AR09 | Marks Not Complete/Incorrect\* |
| CANCEL | Locate Request Canceled |
| LATE | Response is late \* |
| NONE | No response received from member |

\* Codes marked with an asterisk will resend the ticket

## Output Formats

Georgia 811 can deliver tickets in several formats. They are briefly described here, and complete details are provided in the **Format Specifications** section below.

**HTML Email** – this is an email formatted with HTML markup, including data tags. The HTML format is human readable, and we have included hidden data tags that can be used by automated systems to parse information from the email. The following is a sample of the start of one ticket (you can see full ticket samples in the **Format Specifications** section):



**Text Email** – this format is a text-only rendering of the ticket. It is designed to be shown in a fixed-width font for the best readability. Note that this is NOT forced in any way by Georgia 811, it is completely up to the recipient system (email client or TMS) to choose an appropriate font. Here is a sample of the start of a Text Email output:

GA811 Locate Request For: GAUPC Sequence: 11

Ticket Number: 200227-001011 Type: Normal

Prev. Ticket : 200227-001004 Source: Voice

Date : 03/03/20 07:00

Last Response:

Resp. Comment:

**XML for Web Services** – This output type is for automated systems. To set this up, Georgia 811 needs to know the URL of the REST API endpoint to which the xml ticket will POST. Georgia 811 also supports authentication in the form of username and password to be transmitted to your API as well, and can transmit to http or https (preferred, of course). The XML format begins like this sample (the full format is below in the **XML for Web Services** section, and samples are in the SampleTickets folder):

<?xml version="1.0" encoding="utf-8"?>

<Ticket xmlns="http://www.georgia811.com/geocall/ticket/v1">

<OneCallCenter>GA811</OneCallCenter>

<TicketNumber>200227-001011</TicketNumber>

<LocateRequestFor>GAUPC</LocateRequestFor>

<SequenceNumber>11</SequenceNumber>

<PreviousTicketNumber></PreviousTicketNumber>

<TicketType>Normal</TicketType>

<TicketSource>Voice</TicketSource>

**End of Day Audit** – these are email messages in plain text format that list all the tickets sent during the day. Audits are sent out after midnight, and include all tickets delivered the previous day.

# Delivery

## Email

Audits, Text and HTML emails are delivered via SMTP. Georgia 811 does support delivery using TLS encryption for SMTP as well.

## Email Subject

The email subject line for Text and HTML emails is in the format “[Ticket Number] [Ticket Type] GA811”, such as:

191120-005127 Normal GA811

Note that the date format of the ticket is designed so that when sorted as text, tickets are sorted newest to oldest.

Audit messages have a subject line in the format “GA811 End of Day Audit for [Delivery Date]”, such as:

GA811 End of Day Audit for 11/19/2019

# Web Services

To better support automated ticket management systems, Georgia 811 also supports sending tickets to web services. We support sending to RESTful Web Services via POST, with an XML body. The format of the XML body is described below in the Format Specification section.

## HTTP Response Code

Our system expects an HTTP response code of 200 on successful delivery. Any other code will be considered a failed delivery and will cause a retry.

# Format Specifications

The specifics of each output type are detailed below. Different types of tickets have different information that will be included with them, so the formats are dependent on ticket type as well.

## Text Format

The TicketText Format.xlsx spreadsheet included with the sample files contains complete details on this format, including C#-style format strings to indicate the locations of values inserted into the formatted lines. This is a great resource to use if your systems require parsing information from this format.

The same information is presented here in a slightly different format for your reference. Directly below are samples of lines as they appear in the emails. Below this, are the line numbers with their detailed descriptions. The line numbers here are “line type” numbers, so that the first line is line type 1, and includes the service area code and sequence, for instance. The actual line numbers on a ticket are affected by the Locate Instructions and Remarks, which can span many lines.

This format is used for Text Emails as well as the TicketText node in the XML format (see the XML Format Below).

|  |  |
| --- | --- |
| **Line Type** | **Sample** |
| 1 | GA811 Locate Request For: PAL01 Sequence: 3 |
| 2 | Ticket Number: 191216-001001 Type: Normal |
| 3 | Prev. Ticket : 191118-001001 Source: Voice |
| 4 | Date : 12/16/19 16:50 |
| 5 |  |
| 6 | Last Response: AR03 Facility markings no longer visible, please re-mark |
| 7 | Resp. Comment: Weather washed away markings. |
| 8 | For : GAUPC |
| 9 | State : GA County: DEKALB City: DECATUR |
| 10 | Address : ROBIN ST |
| 11 | Cross St : COMMERCE DR |
| 12 | Work Type: POLE REPLACEMENT |
|  |  |
|  | **For Large Project Meeting tickets only** |
| 13 | Scope of Work : From the intersection, 1 mile south |
| 14 | Meeting Location: Starbucks at intersection of Robin St and Commerce Dr. |
|  |  |
| 15 |  |
| 16 | Locate Instructions : |
| 17 | Locate instructions are placed here, automatically wrapped at 71 characters |
| \* | and can span multiple lines. |
| 18 |  |
| 19 | Remarks: |
| 20 | Remarks are placed here, automatically wrapped at 71 characters |
| \* | and can span multiple lines |
| 21 |  |
| 22 | Done for : REYNOLDS LAKE OCONEE |
|  |  |
|  | **For Emergency tickets** |
| 23 | Boring : Y Legal On : 03/04/20 12:19 |
| 24 | Explosives : N Expires On : 03/09/20 07:00 |
| 25 | White-lined: Y |
| 26 | # of Areas : 2 |
|  |  |
|  | **For Normal and Large Project Excavation tickets** |
| 23 | Duration : 2 Days Respond By : 12/19/19 23:59 |
| 24 | Boring : N Legal On : 12/20/19 07:00 |
| 25 | Explosives : N Updateable On: 01/08/20 |
| 26 | White-lined: N Update By : 01/13/20 16:30 |
| 27 | # of Areas : 0 Expires On : 01/16/20 |
|  |  |
|  | **For Large Project Excavation tickets (continuing from above)** |
| 28 | Respond By 30: 01/31/20 23:59 |
| 29 | Respond By 30: 02/02/20 23:59 |
| 30 | Respond By 30: 03/03/20 23:59 |
|  |  |
|  | **For Overhead tickets** |
| 23 | Duration : 31 Days Commence On : 12/20/19 00:00 |
| 24 | Boring : N Complete By : 01/20/20 07:00 |
| 25 | Explosives : N |
| 26 | White-lined: N |
| 27 | # of Areas : 0 |
|  |  |
|  | **For Large Project Meeting tickets** |
| 23 | Duration : Over 90 Days Respond By : 12/20/19 23:59 |
| 24 | Boring : N Excavate On : 01/20/20 07:00 |
| 25 | Explosives : N Meeting Date : 12/20/19 09:00 |
| 26 | White-lined: N Expires On : 12/22/19 |
| 27 | # of Areas : 0 |
|  |  |
|  | **For Design tickets** |
| 23 | Duration : 20 Days Respond By : 12/20/19 23:59 |
| 24 | White-lined: N |
| 25 | # of Areas : 0 |
|  |  |
|  | **For Damage Tickets** |
| 23 | Facility Type Dmg: Telecommunications Equip Type Used: Backhoe/Excavator/Trackhoe |
| 24 | Type of Line : Distribution/Main Damage Extent : Pulled up/out |
| 25 | Service is Out? : Unknown/Other Damaged On : 02/18/20 13:46 |
| 26 | Crew on Site? : Yes |
|  | **Continuing for All Tickets** |
| 31 |  |
| 32 | Company: OSMOSE UTILITIES INC |
| 33 | Type : Contractor |
| 34 | Address: 635 HIGHWAY 74 S |
| 35 | City : PEACHTREE CITY State: GA ZIP: 30269 |
| 36 |  |
| 37 | Caller : JALISA WHITE Phone: 770-631-6906 |
| 38 | Email : JSMITH@SOMEWHERE.COM |
| 39 |  |
| 40 | Contact: JOHN SMITH Phone: 999-123-9876 |
| 41 | Email : JSMITH@SOMEWHERE.COM |
| 42 |  |
| 43 | Submitted date: 12/16/19 16:50 |
| 44 | Service Areas |
|  |  |
|  | **For Normal, Damage, and Overhead ticket types** |
| 45 | Code Name Facility Type Main Damage |
| 46 | PAL100 Service Area Name 1 PAL100 Electric 999-999-9999 999-999-9999 |
|  |  |
|  | **For Emergency ticket types** |
| 45 | Code Name Facility Type Emergency Damage |
| 46 | PAL100 Service Area Name 1 PAL100 Electric 999-999-9999 999-999-9999 |
|  |  |
|  | **For all other ticket types** |
| 45 | Code Name Facility Type Main |
| 46 | PAL100 Service Area Name 1 PAL100 Electric 999-999-9999 |

### Line Descriptions

1. “GA811 Locate Request For: PAL01 Sequence: 3” - GA811 is the center identification, which can be useful for members who receive locate tickets from other states. The “PAL01” in this case is a service area code for a service area matching the locate ticket request. The Sequence number identifies the sequence in which this ticket was queued for delivery. It is additional tracking information in case it is needed.
2. "Ticket Number: 191216-001001 Type: Normal” – This line includes the Ticket Number (the format is described above) and the Ticket Type, in this case, a Normal Ticket.
3. “Prev. Ticket : 191118-001001 Source: Voice” – If this ticket started from another ticket, for instance, if this is an update of a previous ticket, then the original ticket number is provided here. The Source is “Voice” for tickets received by GA811 over the telephone.
4. “Date : 12/16/19 16:50” – This is the time the ticket was taken. Note that hours on all ticket times are military times.
5. (blank line for readability)
6. “Last Response: AR03 Facility markings no longer visible, please re-mark” – this is the last response on this ticket for this service area. This will be blank for most tickets. In this case, a system response of AR02 has been added to this ticket. This is a system response, with a description of “Facility markings no longer visible, please re-mark”.
7. “Resp. Comment: Weather washed away markings.” – This is a comment added to the last response above.
8. “For : GAUPC” – this is the list of service area codes that represent the facilities for which this ticket transmission applies.
9. “State : GA County: DEKALB City: DECATUR” – this is the State, County, and City of the dig site.
10. “Address : ROBIN ST ” – Street address of the dig site.
11. “Cross St : COMMERCE DR” – Nearest cross street to the dig site.
12. “Work Type: POLE REPLACEMENT” – Type of work being performed
13. “Scope of Work : From the intersection, 1 mile south” – For Large Project Meeting tickets, the scope of the work being performed. Other ticket types do not include this line.
14. “Meeting Location: ” – For Large Project Meeting tickets, the location for the meeting. Other ticket types do not include this line.
15. (blank line for readability)
16. “Locate Instructions :” – Locate instructions begin on the next line, and can span many lines. Each line is wrapped at 71 characters.
17. (locate instructions begin)
18. (blank line for readability)
19. “Remarks:” – Remarks begin on the next line and can span many lines. Each line is wrapped at 71 characters.
20. (remarks begin)
21. (blank line for readability)
22. “Done for :” – Who the work is being completed for.

The next section is different based on ticket type. The differences are mostly the dates in the right column, though Design tickets exclude the information in line types 24-27.

**Emergency tickets**

1. “Boring : N Legal On : 12/20/19 07:00” – Is directional boring going to be used in excavation? This will by Y or N. Legal On is the legal date excavation can begin.
2. “Explosives : N Expires On : 01/08/20” – Will explosives be used in excavation? This will be Y or N. The Expires On date is the last day excavation can occur.
3. “White-lined: N” – Has the area been white lined? This will be Y or N.
4. “# of Areas : 0” - # of Areas is the number of areas that have been white lined.

**Normal and Large Project Excavation tickets**

1. “Duration : 2 Days Respond By : 12/19/19 23:59” – Duration of the work, and the Respond By date (the date that members need to respond to PRIS by).
2. “Boring : N Legal On : 12/20/19 07:00” – Is directional boring going to be used in excavation? This will by Y or N. Legal On is the legal date excavation can begin.
3. “Explosives : N Updateable On: 01/08/20” – Will explosives be used in excavation? This will be Y or N. The Updateable On date is the earliest date this ticket can be updated.
4. “White-lined: N Update By : 01/13/20 16:30” – Has the area been white lined? This will be Y or N. The Update By date is the last day the ticket can be updated.
5. “# of Areas : 0 Expires On : 01/16/20” - # of Areas is the number of areas that have been white lined. The Expires On date is the last day excavation can occur.

**For Large Project Excavation tickets**

1. “Respond By 30: 01/31/20 23:59” – the response due date for the first 30 days if a member is not marking according to the agreement
2. “Respond By 60: 02/03/20 23:59” – the response due date for the second 30 days if a member is not marking according to the agreement
3. “Respond By 90: 03/03/20 23:59” – the response due date for the third 30 days if a member is not marking according to the agreement

**For Overhead Tickets**

1. “Duration : 2 Days Commence On : 12/19/19 23:59” – Duration of the work, and the date work will start
2. “Boring : N Complete By : 12/20/19 07:00” – Is directional boring going to be used in excavation? This will by Y or N. Complete By is the date work will be completed by.
3. “Explosives :” – Will explosives be used in excavation? This will be Y or N.
4. “White-lined: N” – Has the area been white lined? This will be Y or N.
5. “# of Areas : 0 ” - # of Areas is the number of areas that have been white lined.

**For Large Project Meeting Tickets**

1. “Duration : Over 90 Days Respond By : 12/20/19 23:59” – The duration of the work, and the date the members should respond by.
2. “Boring : N Excavate On : 01/20/20 07:00” ” – Is directional boring going to be used in excavation? This will by Y or N. The Excavation On is the proposed Excavation date for the project.
3. “Explosives : N Meeting Date : 12/20/19 09:00” – Will explosives be used in excavation? This will be Y or N. Meeting Date is the date the large project meeting will be held on.
4. “White-lined: N Expires On : 12/22/19” – Has the area been white lined? This will be Y or N. The Expires On date is the date the Meeting Notice Expires.
5. “# of Areas : 0” - # of Areas is the number of areas that have been white lined.

**For Design Tickets**

1. “Duration : 20 Days Respond By : 12/20/19 23:59”
2. “White-lined: N” – Has the area been white lined? This will be Y or N.
3. “# of Areas : 0 ” - # of Areas is the number of areas that have been white lined.

**For Damage Tickets**

1. “Facility Type Dmg: Telecommunications Equip Type Used: Backhoe/Excavator/Trackhoe”
2. “Type of Line : Distribution/Main Damage Extent : Pulled up/out”
3. “Service is Out? : Unknown/Other Damaged On : 02/18/20 13:46”
4. “Crew on Site? : Yes”

**Continuing for All Tickets**

1. (blank line for spacing)
2. “Company:” – The name of the Excavator.
3. “Type : Contractor” – The type of Excavator.
4. “Address: ” – Street address of the Excavator.
5. “City : PEACHTREE CITY State: GA ZIP: 30269” – City, State, and ZIP Code of the Excavator.
6. (blank line for spacing)
7. “Caller : JANE DOE Phone: 770-999-9999” – Caller’s name and phone number
8. “Email : [user@someplace.com](mailto:user@someplace.com)” – Caller’s email address
9. (blank line for spacing)
10. “Contact: JOHN SMITH Phone: 999-123-9876” – Field Contact’s name and phone number.
11. “Email : user2@someplace.com” – Field Contact’s email address
12. (blank line for spacing)
13. “Submitted date: 12/16/19 16:50” – Date and time the ticket was submitted.
14. “Service Areas”

The next section lists all the member service areas on a ticket, along with the member contact phone numbers based on certain ticket types. The sections show the same information, except for the types of phone numbers shown for each member.

**Normal, Damage, and Overhead Tickets**

1. “Code Name Facility Type Main Damage” – this is the header row for the rows following. The Code is the service area code. The Name the Member name with the SA Code. Facility Type is the type of facility that matches the service area. Main is the Main phone number for that member. Damage is the number to call for damages for that member.
2. This is the data matching the header row above it, for each service area on the ticket.

**Emergency Tickets**

1. “Code Name Facility Type Emergency Damage” – this is the header row for the rows following. The Code is the service area code. The Name the Member name with the SA Code. Facility Type is the type of facility that matches the service area. Emergency is the Emergency phone number for that member. Damage is the number to call for damages for that member.
2. This is the data matching the header row above it, for each service area on the ticket.

**All Other Ticket Types**

1. “Code Name Facility Type Main” – this is the header row for the rows following. The Code is the service area code. The Name the Member name with the SA Code. Facility Type is the type of facility that matches the service area. Main is the Main phone number for that member.
2. This is the data matching the header row above it, for each service area on the ticket.

## Daily Text Audit Format

Georgia 811 can deliver a daily text email audit report that includes information on every ticket delivered for the day. The audit is sent out shortly after midnight for the previous day. The audit message is a plain-text email message such as this:

FROM GEORGIA 811

Audit For 3/4/2020

GEORGIA UTILITIES PROTECTION CENTER - GAUPC

For GAUPC

TYPE SEQ# TICKET STATUS

----- ---- ------------------------- -----------------

N 0001 200304-001001 Delivered

N 0002 200304-001002 Delivered

DMG 0003 200304-001003 Delivered

LPM 0004 200304-001004 Delivered

LPE 0005 200304-001005 Delivered

LPE 0006 200304-001006 Delivered

N 0007 200304-001007 Delivered

OH 0008 200304-001008 Delivered

DS 0009 200304-001009 Delivered

E 0010 200304-001010 Delivered

DMG 0011 200304-001011 Delivered

LPM 0012 200304-001012 Delivered

C 0013 200304-001013 Delivered

LPE 0014 200304-001014 Delivered

C 0015 200304-001015 Delivered

C 0016 200304-001016 Delivered

N 0017 200304-001017 Delivered

N 0018 200304-001018 Delivered

DMG 0019 200304-001019 Delivered

E 0020 200304-001020 Delivered

DS 0021 200304-001021 Delivered

N 0022 200304-001022 Delivered

LPM 0023 200304-001023 Delivered

LPE 0024 200304-001024 Delivered

LPE 0025 200304-001025 Delivered

LPE 0026 200304-001026 Delivered

N 0027 200304-001027 Delivered

N 0028 200304-001028 Delivered

N 0029 200304-001029 Delivered

N 0030 200304-001030 Delivered

N 0031 200304-001031 Delivered

Normal : 11

Cancel : 3

Emergency Notification : 2

Damage Notification : 3

Overhead : 1

Design : 2

Large Project Excavation : 3

Large Project Meeting : 3

Resend : 0

---------------------------------------------------------------

Total : 31

LEGEND

-----------------------

N - Normal

C - Cancel

E - Emergency Notification

DMG - Damage Notification

OH - Overhead

DS - Design

LPE - Large Project Excavation

LPM - Large Project Meeting

R - Resend

There are 4 sections to the Audit message, the Header, Ticket List, Summary, and Legend.

### Header

The header identifies the center (Georgia 811), the audit date, the output setup, and the service area code or codes the audit is for.

|  |  |
| --- | --- |
| Line Type | Sample |
| 1 | FROM GEORGIA 811 |
| 2 | Audit For 3/4/2020 |
| 3 | GEORGIA UTILITIES PROTECTION CENTER - GAUPC |
| 4 |  |
| 5 | For GAUPC |
| 6 |  |

**Line Descriptions**

1. This will always be “FROM GEORGIA 811”
2. This line type will specify the date the audit covers
3. This line shows the name of the output, which is usually in the format of the name of the member followed by the service area code, separated with a hyphen. The sample above is a service area used for testing purposes.
4. This is a blank line for spacing.
5. This line will show the Service Area Code or codes for which tickets on this audit are included.
6. This is a blank line for spacing.

### Ticket List

|  |  |
| --- | --- |
| Line Type | Sample |
| 7 | TYPE SEQ# TICKET STATUS |
| 8 | ----- ---- ------------------------- ----------------- |
| 9 | N 0001 200304-001001 Delivered |

**Line Descriptions**

1. Column titles for the ticket list
2. Hyphens used as underlines for the column titles
3. Individual tickets will be listed using this line type. There will be one line for each ticket delivered to the output (a ticket receiving destination, such as an email address or web service location) during the day the audit covers.

**Column Descriptions for Tickets**

**TYPE** – this is an abbreviation for the ticket type. The abbreviation used here is defined in the Legend section at the bottom of the audit message. This will be in character positions 1-5.

**SEQ#** - This is the sequence number for the ticket. This is a number identifying the order that the ticket was queued. In some circumstances, there may be apparent gaps in the sequence number. This is the case when multiple outputs are defined for a service area, for instance. This will be in character positions 8-11.

**TICKET** – This is the ticket number. This will be in character positions 14-26.

**STATUS** – The status of the ticket delivery. This will be in character positions 41-78.

### Summary

|  |  |
| --- | --- |
| Line Type | Sample |
| 10 |  |
| 11 | Normal : 11 |
| 12 | Cancel : 3 |
| 13 | Emergency Notification : 2 |
| 14 | Damage Notification : 3 |
| 15 | Overhead : 1 |
| 16 | Design : 2 |
| 17 | Large Project Excavation : 3 |
| 18 | Large Project Meeting : 3 |
| 19 | Resend : 0 |
| 20 | --------------------------------------------------------------- |
| 21 | Total : 31 |

**Line Descriptions**

1. This is a blank line for spacing.

Line Types 11-19 show the ticket type and the total tickets of that type for this audit message. In all cases, the total for the ticket type begins on character position 28. There is no set limit on the number of characters for the total, it will be as many as needed.

1. This line consists of hyphens used as an underline.
2. Grand total, the total number of tickets in this audit message.

### Legend

The final section is a legend that identifies the ticket type abbreviation and the full ticket type name it represents in the list. This is separated from the summary section with three blank lines.

LEGEND

-----------------------

N - Normal

C - Cancel

E - Emergency Notification

DMG - Damage Notification

OH - Overhead

DS - Design

LPE - Large Project Excavation

LPM - Large Project Meeting

R - Resend

The sample text here is also contained in the Audit.txt file in the TicketSamples folder.

## Text “Message” Format

Georgia 811 may send messages through it’s ticketing system as well. This type of messaging is useful for emergency situations to inform members of important information regarding the Georgia 811 service.

The Message format for text email recipients is simple

1. Message From Georgia 811
2. 4/15/2020 11:06:32 AM
3. Message text
4. This will always be the text “Message From Georgia 811”, identifying Georgia 811 as the center sending the message, in case the recipient recieves tickets from different state centers.
5. The date and time the message was sent
6. Line 3 will be the start of the message text, and will use as many lines as needed for the message.

## Parsable Text Format

The regular text format is designed to be read from a screen, but some members use ticket management systems which receive emails and parse the text in the message to be written into a database. Although the XML format is very well suited for this, there are some systems that do not suppot it. So, for these members, we have created a ticket format that is easier to parse. Note that these members will receive the standard Daily Text Audit Format for daily audits, and Text “Message” Format for messages.

The parsable format places each single-line ticket field on its own line, and each value for these fields always begins at character position 28. All fields are present in each output, but if that field does not apply to that ticket type, the value will be blank.

Fields that span more than one line are enclosed in BEGIN and END section headers.

|  |  |
| --- | --- |
| **Line** | **Sample** |
| 1 | [TICKET] |
| 2 | GA811 Locate Request For : GAUPC |
| 3 | Sequence : 13 |
| 4 | Ticket Number : 200414-001018 |
| 5 | Ticket Type : Large Project Meeting |
| 6 | Previous Ticket : |
| 7 | Source : Voice |
| 8 | [LAST RESPONSE] |
| 9 | Last Response Code : |
| 10 | Resp. Comment : |
| 11 | [WORK SITE] |
| 12 | Work Site State : GA |
| 13 | Work Site County : COBB |
| 14 | Work Site City : KENNESAW |
| 15 | Work Site Address : 3350 COUNTRY CREEK DR NW |
| 16 | Work Site Cross St : OWENS PASS NW |
| 17 | Work Site Work Type : install storm drain |
| 18 | Done for : City |
| 19 | Scope of Work : Drains on both sides of the street |
| 20 | Meeting Location : Coffee shop on the corner |
| 21 | Project Duration : Over 90 Days |
| 22 | Directional Boring : N |
| 23 | Explosives : N |
| 24 | White-lined : N |
| 25 | Number of Areas : 0 |
| 26 | Longitude : -84.3778975 |
| 27 | Latitude : 34.9152755 |
| 28 | [DATES] |
| 29 | Created On : 04/14/2020 17:46 |
| 30 | Respond By : 04/17/2020 23:59 |
| 31 | Legal On : 04/30/2020 07:00 |
| 32 | Updateable On : |
| 33 | Update By : |
| 34 | Expires On : 04/15/2020 00:00 |
| 35 | Meeting Date : 04/20/2020 08:00 |
| 36 | Respond By 30 : |
| 37 | Respond By 60 : |
| 38 | Respond By 90 : |
| 39 | Commence On : |
| 40 | Complete By : |
| 41 | [DAMAGE] |
| 42 | Damage Facility Type : |
| 43 | Damage Type Of Line : |
| 44 | Damage Extend of Damage : |
| 45 | Damage Is Service Out? : |
| 46 | Damage Equip. Type Used : |
| 47 | Damage Is Crew On Site? : |
| 48 | Damage Damaged On : |
| 49 | [CONTACTS] |
| 50 | Excavator Company : John Smith |
| 51 | Excavator Type : Business |
| 52 | Excavator Address : 123 Second Ave |
| 53 | Excavator City : Kennesaw |
| 54 | Excavator State : GA |
| 55 | Excavator ZIP : 30144 |
| 56 | Caller Name : John Smith |
| 57 | Caller Phone : 1112223333 |
| 58 | Caller Phone Ext : 999 |
| 59 | Caller Email : johns@sample.org |
| 60 | Contact Name : Jane Smith |
| 61 | Contact Phone : 3334445555 |
| 62 | Contact Phone Ext : 222 |
| 63 | Contact Email : janes@sample.org |
|  | [INSTRUCTIONS BEGIN] |
|  | Nunc quis elit id lacus tincidunt dictum. Sed in elit ac purus feugiat rutrum. |
|  | [INSTRUCTIONS END] |
|  | [REMARKS BEGIN] |
|  | Sed in ex ante. Quisque varius dui sed mauris iaculis consequat. Aliquam in |
|  | faucibus diam. Praesent sollicitudin molestie turpis ullamcorper tincidunt. |
|  | Etiam eleifend vestibulum odio, vel blandit turpis rhoncus sit amet. Nulla sit |
|  | amet blandit nisi. Nulla eu blandit tellus. Curabitur non ultricies elit. Nunc |
|  | eget justo id ante blandit ultrices non a risus. Morbi consequat eget arcu nec |
|  | consectetur. |
|  | [REMARKS END] |
|  | [SERVICE AREAS BEGIN] |
|  | [Code] [Name] [Facility Type] [Main] [Emergency] [Damage] |
|  | GAUPC GEORGIA UTILITIES PROTECTION CENTER - GAUPC Other 999-999-9999 999-999-9999 999-999-9999 |
|  | [SERVICE AREAS END] |

1. Ticket header
2. Code(s) for the members this notice is for
3. Sequence number of this ticket as it was queued for delivery
4. Ticket number
5. Ticket Type
6. Previous ticket – the ticket number of any ticket to which this ticket referrs. This can be a Cancel ticket referring to the ticket being cancelled, a Normal ticket being renewed, a Damage Notification referring to a ticket for an excavation where damage ocurred, or a Large Project Excavation ticket referring to a previous Excavation or Meeting ticket, or similar circumstance.
7. Source, Voice for call-in tickets, other sources for other channels
8. Last Response header
9. Last Response Code, if this is a resend of a ticket, or an additional request, this will contain the last response code for the service are the ticket is for
10. Response Comment, any comment attached to the last response code for this ticket
11. Work Site header
12. Work Site State
13. Work Site County
14. Work Site City
15. Work Site Address
16. Work Site Cross Street
17. Work Site Work Type
18. Done For – who the work is being done for
19. Scope of Work – the scope of work for large projects
20. Meeting Location – for large project meeting tickets, the location of the large project meeting
21. Project Duration
22. Directional Boring – Y or N
23. Explosives – Y or N
24. White Lined – has the excavation area or areas been white lined? Y or N
25. Number of areas – the number of areas that have been white lined
26. Longitude
27. Latitude
28. Dates header
29. Created On – when the ticket was created
30. Respond By - the is is the due date for the PRIS response
31. Legal On – Date excavation is legal
32. Updateable On – the date the ticket can be updated (renewed)
33. Update By – the last date and time that the ticket can be updated
34. Expires On – when the ticketexpires
35. Meeting Date – The date and time of the large project meeting
36. Respond By 30 – for large project excavation tickets, any member not treating this as a large project will need to respond to the excavation ticket as a normal excavation for the first 30 day period by this date and time.
37. Respond By 60 – for large project excavation tickets, any member not treating this as a large project will need to respond to the excavation ticket as a normal excavation for the second 30 day period by this date and time.
38. Respond By 90 – for large project excavation tickets, any member not treating this as a large project will need to respond to the excavation ticket as a normal excavation for the third 30 day period by this date and time.
39. Commence On – for overhead tickets, the date the work will begin on
40. Complete By – for overhead tickets, the date the work will end
41. Damage header
42. Damage Facility Type – Facitliy type damaged
43. Damage Type Of Line – Type of line damaged
44. Damage Extent of Damage – Extent of the damage
45. Damage Is Service Out? – Is the service out?
46. Damage Equipment Type Used – equipment used at the time the facility was damaged
47. Damage Is Crew On Site? – is the crew on site?
48. Damage Damaged On – the date and time the damage ocurred
49. Contacts Header
50. Excavator Company – Name of the Excavator
51. Excavator Type – Business, Contractor, Homeowner, etc.
52. Excavator Address – Street address
53. Excavator City
54. Excavator State
55. Excavator ZIP
56. Caller Name
57. Caller Phone
58. Caller Phone Extension
59. Caller Email
60. Contact Name
61. Contact Phone
62. Contact Phone Extension
63. Contact Email

Instructions Begin header – [INSTRUCTIONS BEGIN] Locate instructions begin on the line following this line, and end with the Instructions End header

Instructions End header – [INSTRUCTIONS END] indicates the end of the locate instructions

Remarks Begin header – [REMARKS BEGIN] indicates that remarks begin on the following line

Remarks End header – [REMARKS END] indicates the end of the remarks

Service Areas Begin header – [SERVICE AREAS BEGIN] indicates the beginning of the service area listing

Service area list header – information about each service area is listed below this header line. Service area information is listed in a table, with the following information:

Code – the service area code

Name – the service area name

Facility Type – the type of facility for the service area (Telecommunications, water, sewer, etc.)

Main – the main phone number for the service area\*

Emergency – the emergency number for the service area\*

Damage – the number for damages for the service area\*

\*Not all phone numbers are provided for every ticket type.

Service Areas end header – [SERVICE AREAS END] indicates the end of the service area list, and the end of the ticket.

## HTML Format

The HTML format is used to generate an email that is easy to read on most modern email clients, and enable parsing using data tags for automated systems that wish to parse emails instead of receiving direct REST web service POST’s.

This format is similar to the Text Format above, but re-organized and re-formatted. Field labels are bolded, for instance, and sections are separated with horizontal rules. Locate instructions and Remarks also do not wrap as the Text Format, but rather relies on the client to wrap text in these sections appropriately.

### Data Tags

In addition to reformatting, each field is surrounded with a data tag. These data tags are intended to allow parsing by referencing the appropriate data tag with the appropriate name. For instance, the value for Ticket Number is contained in a data tag such as this:

<data name="TicketNumber">200302-001020</data>

The following pages show samples of each ticket type. After the samples, we have provided a table containing the definition and the data tag that corresponds to that item, based on the label in the email. Note that text in RED in each sample is a note, and NOT text that shows in the email. For instance, the company name does not have a label, so it is identified on the sample with red text to indicate what field that is on the sample.

### Normal

GA811 Locate Request For: GAUPC

|  |  |
| --- | --- |
| Ticket Number: 200302-001055 | Ticket Type: Normal |
| Date/Time: 3/2/2020 3:24 PM | Sequence Number: 55 |
| Previous Ticket: | **Source:** Voice |

**Last Response:**

**Comments:**

Company Information

|  |  |
| --- | --- |
| John Smith (CompanyName) | Company Type: Contractor |
| 123 Main St (CompanyStreetAddress) | Phone: (770) 111-2222(CompanyPhone) |
| Dacula, GA 30019 (CompanyCity, CompanyState, CompanyZIP) |  |
| Caller Name: John Smith | Field Contact: Mike Jones |
| Phone: (770) 999-9999 (CallerPhone) | Phone: (FieldContactPhone) |
| Email: [JSMITH@GEORGIA811.COM](mailto:JSMITH@GEORGIA811.COM) (CallerEmail) | Email: (FieldContactEmail) |

Work Information

|  |  |
| --- | --- |
| Work Type: INSTALLING WATER SERVICE |  |
| **Project Duration:** 1day | Done For: GA811 |
|  |  |
| State: GA |  |
| County: THOMAS | Street: 123 ADDRESS ST |
| City: THOMASVILLE | Cross Street: ANOTHER RD |
|  |  |
| **Explosives:** No | **Directional Boring:** No |
| **White-Lined:** Yes | **# W-Lined Areas:** 1 |

Locate Instructions

LOCATE AROUND THE EXISTING SMALL WELL BUILDING IN THE REAR OF THE PROP FOR A 3FT OFFSET-1 AREA OUTLINED WITH ORANGE FLAGS

Remarks

Dates

Legal Date: 3/5/2020 07:00  
Respond By: 3/4/2020 23:59

**Updateable On:** 3/24/2020  
Update by: 3/27/2020 16:30  
Expiration Date: 4/1/2020

Members

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Name | Facility Type | Phone |
| XYZ90 | XZY UTILITY – XYZ90 | Natural Gas | (123) 999-9999 [Main] |
| ABC123 | ABC UTILITY – ABC123 | Telecommunication | (777) 888-8888 [Main] |
| QQQ10 | Q WATER AND SEWER – QQQ10 | Sewer | (666) 666-6666 [Main] |
| QQQ20 | Q WATER AND SEWER – QQQ20 | Water | (666) 666-6666 [Main] |
| GAUPC | GEORGIA UTILITIES PROTECTION CENTER - GAUPC | Other | (770) 623-4332 [Main] |

### Overhead

GA811 Locate Request For: GAUPC

|  |  |
| --- | --- |
| Ticket Number: 200302-001055 | Ticket Type: Overhead |
| Date/Time: 3/2/2020 3:24 PM | Sequence Number: 55 |
| Previous Ticket: | **Source:** Voice |

**Last Response:**

**Comments:**

Company Information

|  |  |
| --- | --- |
| John Smith (CompanyName) | Company Type: Contractor |
| 123 Main St (CompanyStreetAddress) | Phone: (770) 111-2222(CompanyPhone) |
| Dacula, GA 30019 (CompanyCity, CompanyState, CompanyZIP) |  |
| Caller Name: John Smith | Field Contact: Mike Jones |
| Phone: (770) 999-9999 (CallerPhone) | Phone: (FieldContactPhone) |
| Email: [JSMITH@GEORGIA811.COM](mailto:JSMITH@GEORGIA811.COM) (CallerEmail) | Email: (FieldContactEmail) |

Work Information

|  |  |
| --- | --- |
| Work Type: INSTALLING WATER SERVICE |  |
|  | Done For: GA811 |
|  |  |
| State: GA |  |
| County: THOMAS | Street: 123 ADDRESS ST |
| City: THOMASVILLE | Cross Street: ANOTHER RD |
|  |  |

Locate Instructions

REMOVING TREE IN FRONT YARD

Remarks

Dates

Commence On: 3/6/2020 07:00

Completed By: 3/27/2020 16:30

Members

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Name | Facility Type | Phone |
| GAUPC | GEORGIA UTILITIES PROTECTION CENTER - GAUPC | Other | (770) 623-4332 [Main] |

### Design

GA811 Locate Request For: GAUPC

|  |  |
| --- | --- |
| Ticket Number: 200302-001055 | Ticket Type: Design |
| Date/Time: 3/2/2020 3:24 PM | Sequence Number: 5 |
| Previous Ticket: | **Source:** Voice |

**Last Response:**

**Comments:**

Company Information

|  |  |
| --- | --- |
| John Smith (CompanyName) | Company Type: Contractor |
| 123 Main St (CompanyStreetAddress) | Phone: (770) 111-2222(CompanyPhone) |
| Dacula, GA 30019 (CompanyCity, CompanyState, CompanyZIP) |  |
| Caller Name: John Smith | Field Contact: Mike Jones |
| Phone: (770) 999-9999 (CallerPhone) | Phone: (FieldContactPhone) |
| Email: [JSMITH@GEORGIA811.COM](mailto:JSMITH@GEORGIA811.COM) (CallerEmail) | Email: (FieldContactEmail) |

Work Information

|  |  |
| --- | --- |
| Work Type: Design |  |
|  | Done For: GA811 |
|  |  |
| State: GA |  |
| County: THOMAS | Street: 123 ADDRESS ST |
| City: THOMASVILLE | Cross Street: ANOTHER RD |
|  |  |
| **White-Lined:** Yes | **# W-Lined Areas:** 1 |
| **Preferred Response Type:** Mark Utilities |  |

Locate Instructions

REMOVING TREE IN FRONT YARD

Remarks  
THIS INFORMATION HAS NOT BEEN VERIFIED BY THE UTILITIES PROTECTION CENTER, INC. D.B.A GEORGIA 811 AND IS NOT WARRANTED FOR ANY PURPOSE. THIS INFORMATION IS FURNISHED SOLELY AS AN ACCOMMODATION TO THE REQUESTING PARTY WHO WARRANTS THAT IT SHALL NOT BE USED IN CONNECTION WITH ANY EXCAVATION OR OTHER WORK COVERED BY TITLE 25, CHAPTER 9 OF THE OFFICIAL CODE OF GEORGIA ANNOTATED.

Dates

Respond By: 3/4/2020 23:59

Members

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Name | Facility Type | Phone |
| XYZ90 | XZY UTILITY – XYZ90 | Natural Gas | (123) 999-9999 [Main] |
| ABC123 | ABC UTILITY – ABC123 | Telecommunication | (777) 888-8888 [Main] |
| QQQ10 | Q WATER AND SEWER – QQQ10 | Sewer | (666) 666-6666 [Main] |
| QQQ20 | Q WATER AND SEWER – QQQ20 | Water | (666) 666-6666 [Main] |
| GAUPC | GEORGIA UTILITIES PROTECTION CENTER - GAUPC | Other | (770) 623-4332 [Main] |

### Damage Notification

GA811 Locate Request For: XYZ90

|  |  |
| --- | --- |
| Ticket Number: 200302-001052 | Ticket Type: Damage |
| Date/Time: 3/2/2020 3:24 PM | Sequence Number: 42 |
| Previous Ticket: 200302-001048 | **Source:** Voice |

**Last Response:**

**Comments:**

Company Information

|  |  |
| --- | --- |
| John Smith (CompanyName) | Company Type: Contractor |
| 123 Main St (CompanyStreetAddress) | Phone: (770) 111-2222(CompanyPhone) |
| Dacula, GA 30019 (CompanyCity, CompanyState, CompanyZIP) |  |
| Caller Name: John Smith | Field Contact: Mike Jones |
| Phone: (770) 999-9999 (CallerPhone) | Phone: (FieldContactPhone) |
| Email: [JSMITH@GEORGIA811.COM](mailto:JSMITH@GEORGIA811.COM) (CallerEmail) | Email: (FieldContactEmail) |

Work Information

|  |  |
| --- | --- |
| Work Type: CUTTING DOWN TREES |  |
|  | Done For: GA811 |
| State: GA |  |
| County: GWINNETT | Street: 123 ADDRESS ST |
| City: DACULA | Cross Street: ANOTHER RD |
|  |  |
| **Facility Type Dmg:** Natural Gas | **Equip Type Used:** Directional Drilling |
| **Type of Line:** Service | **Damage Extent:** Cut in two |
| **Service is Out?:** Yes | **Damaged On:** 1/27/2020 13:00 |
| **Crew on Site?:** Yes |  |

Locate Instructions

LOCATE THE BACK LEFT SIDE OF THE PROPERTY

Remarks

Dates

Members

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Name | Facility Type | Phone |
| XYZ90 | XZY UTILITY – XYZ90 | Natural Gas | (123) 999-9999 [Main] |
| ABC123 | ABC UTILITY – ABC123 | Telecommunication | (777) 888-8888 [Main] |
| QQQ10 | Q WATER AND SEWER – QQQ10 | Sewer | (666) 666-6666 [Main] |
| QQQ20 | Q WATER AND SEWER – QQQ20 | Water | (666) 666-6666 [Main] |
| GAUPC | GEORGIA UTILITIES PROTECTION CENTER - GAUPC | Other | (770) 623-4332 [Main] |

### Emergency Notification

GA811 Locate Request For: GAUPC

|  |  |
| --- | --- |
| Ticket Number: 200302-001055 | Ticket Type: Emergency |
| Date/Time: 1/27/2020 10:09 | Sequence Number: 55 |
| Previous Ticket: | **Source:** Voice |

**Last Response:**

**Comments:**

Company Information

|  |  |
| --- | --- |
| John Smith (CompanyName) | Company Type: Contractor |
| 123 Main St (CompanyStreetAddress) | Phone: (770) 111-2222(CompanyPhone) |
| Dacula, GA 30019 (CompanyCity, CompanyState, CompanyZIP) |  |
| Caller Name: John Smith | Field Contact: Mike Jones |
| Phone: (770) 999-9999 (CallerPhone) | Phone: (FieldContactPhone) |
| Email: [JSMITH@GEORGIA811.COM](mailto:JSMITH@GEORGIA811.COM) (CallerEmail) | Email: (FieldContactEmail) |

Work Information

|  |  |
| --- | --- |
| Work Type: REPAIR WATER SERVICE |  |
| **Project Duration:** 1day | Done For: GA811 |
|  |  |
| State: GA |  |
| County: THOMAS | Street: 123 ADDRESS ST |
| City: THOMASVILLE | Cross Street: ANOTHER RD |
|  |  |
| **Explosives:** No | **Directional Boring:** No |
| **White-Lined:** Yes | **# W-Lined Areas:** 1 |

Locate Instructions

LOCATE THE FRONT OF THE PROPERTY

Remarks

Dates

Legal Date: 1/27/2020 10:09

Expiration Date: 1/30/2020

Members

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Name | Facility Type | Phone |
| XYZ90 | XZY UTILITY – XYZ90 | Natural Gas | (123) 999-9999 [Main] |
| ABC123 | ABC UTILITY – ABC123 | Telecommunication | (777) 888-8888 [Main] |
| QQQ10 | Q WATER AND SEWER – QQQ10 | Sewer | (666) 666-6666 [Main] |
| QQQ20 | Q WATER AND SEWER – QQQ20 | Water | (666) 666-6666 [Main] |
| GAUPC | GEORGIA UTILITIES PROTECTION CENTER - GAUPC | Other | (770) 623-4332 [Main] |

### Cancel

GA811 Locate Request For: GAUPC

|  |  |
| --- | --- |
| Ticket Number: 200302-001051 | Ticket Type: Cancel |
| Date/Time: 1/27/2020 10:09 | Sequence Number: 55 |
| Previous Ticket: 200302-001048 | **Source:** Voice |

**Last Response:**

**Comments:**

Company Information

|  |  |
| --- | --- |
| John Smith (CompanyName) | Company Type: Contractor |
| 123 Main St (CompanyStreetAddress) | Phone: (770) 111-2222(CompanyPhone) |
| Dacula, GA 30019 (CompanyCity, CompanyState, CompanyZIP) |  |
| Caller Name: John Smith | Field Contact: Mike Jones |
| Phone: (770) 999-9999 (CallerPhone) | Phone: (FieldContactPhone) |
| Email: [JSMITH@GEORGIA811.COM](mailto:JSMITH@GEORGIA811.COM) (CallerEmail) | Email: (FieldContactEmail) |

Work Information

|  |  |
| --- | --- |
| Work Type: INSTALLING WATER SERVICE |  |
| **Project Duration:** 1day | Done For: GA811 |
|  |  |
| State: GA |  |
| County: THOMAS | Street: 123 ADDRESS ST |
| City: THOMASVILLE | Cross Street: ANOTHER RD |
|  |  |
| **Explosives:** No | **Directional Boring:** No |
| **White-Lined:** Yes | **# W-Lined Areas:** 1 |

Locate Instructions

LOCATE THE BACK LEFT SIDE OF THE PROPERTY

Remarks  
CANCELED – WRONG LOCATE INSTRUCTIONS

Dates

Members

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Name | Facility Type | Phone |
| XYZ90 | XZY UTILITY – XYZ90 | Natural Gas | (123) 999-9999 [Main] |
| ABC123 | ABC UTILITY – ABC123 | Telecommunication | (777) 888-8888 [Main] |
| QQQ10 | Q WATER AND SEWER – QQQ10 | Sewer | (666) 666-6666 [Main] |
| QQQ20 | Q WATER AND SEWER – QQQ20 | Water | (666) 666-6666 [Main] |
| GAUPC | GEORGIA UTILITIES PROTECTION CENTER - GAUPC | Other | (770) 623-4332 [Main] |

### Large Project Meeting

GA811 Locate Request For: GAUPC

|  |  |
| --- | --- |
| Ticket Number: 200302-001055 | Ticket Type: Large Project Meeting |
| Date/Time: 3/2/2020 15:24 | Sequence Number: 5 |
| Previous Ticket: | **Source:** Voice |

**Last Response:**

**Comments:**

Company Information

|  |  |
| --- | --- |
| John Smith (CompanyName) | Company Type: Contractor |
| 123 Main St (CompanyStreetAddress) | Phone: (770) 111-2222(CompanyPhone) |
| Dacula, GA 30019 (CompanyCity, CompanyState, CompanyZIP) |  |
| Caller Name: John Smith | LP Contact: Mike Jones |
| Phone: (770) 999-9999 (CallerPhone) | Phone: (FieldContactPhone) |
| Email: [JSMITH@GEORGIA811.COM](mailto:JSMITH@GEORGIA811.COM) (CallerEmail) | Email: (FieldContactEmail) |

Work Information

|  |  |
| --- | --- |
| Work Type: Demolition of a building  **Scope of Work:** Take down 1 building and parking lot  **Meeting Location:** Dunkin Donuts at the intersection |  |
| **Project Duration:** 120 days | Done For: GA811 |
|  |  |
| State: GA |  |
| County: THOMAS | Street: 123 ADDRESS ST |
| City: THOMASVILLE | Cross Street: ANOTHER RD |
|  |  |
| **Explosives:** No | **Directional Boring:** No |
| **White-Lined:** Yes | **# W-Lined Areas:** 1 |

Locate Instructions

Locate through the entire parking lot

Remarks

Dates

Meeting Date: 3/06/2020 10:00  
Respond By: 3/5/2020 23:59

Expiration Date: 3/11/2020

**Excavate On:** 3/18/2020 07:00

Members

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Name | Facility Type | Phone |
| XYZ90 | XZY UTILITY – XYZ90 | Natural Gas | (123) 999-9999 [Main] |
| ABC123 | ABC UTILITY – ABC123 | Telecommunication | (777) 888-8888 [Main] |
| QQQ10 | Q WATER AND SEWER – QQQ10 | Sewer | (666) 666-6666 [Main] |
| QQQ20 | Q WATER AND SEWER – QQQ20 | Water | (666) 666-6666 [Main] |
| GAUPC | GEORGIA UTILITIES PROTECTION CENTER - GAUPC | Other | (770) 623-4332 [Main] |

### Large Project Excavation

GA811 Locate Request For: GAUPC

|  |  |
| --- | --- |
| Ticket Number: 200302-001055 | Ticket Type: Large Project Excavation |
| Date/Time: 3/2/2020 3:24 PM | Sequence Number: 55 |
| Previous Ticket: 200301-001001 | **Source:** Voice |

**Last Response:**

**Comments:**

Company Information

|  |  |
| --- | --- |
| John Smith (CompanyName) | Company Type: Contractor |
| 123 Main St (CompanyStreetAddress) | Phone: (770) 111-2222 (CompanyPhone) |
| Dacula, GA 30019 (CompanyCity, CompanyState, CompanyZIP) |  |
| Caller Name: John Smith | LP Contact: Mike Jones |
| Phone: (770) 999-9999 (CallerPhone) | Phone: (FieldContactPhone) |
| Email: [JSMITH@GEORGIA811.COM](mailto:JSMITH@GEORGIA811.COM) (CallerEmail) | Email: (FieldContactEmail) |

Work Information

|  |  |
| --- | --- |
| Work Type: INSTALLING WATER SERVICE |  |
| **Project Duration:** 1day | Done For: GA811 |
|  |  |
| State: GA |  |
| County: THOMAS | Street: 123 ADDRESS ST |
| City: THOMASVILLE | Cross Street: ANOTHER RD |
|  |  |
| **Explosives:** No | **Directional Boring:** No |
| **White-Lined:** Yes | **# W-Lined Areas:** 1 |

Locate Instructions

Locate through the entire parking lot

Remarks

Dates

Respond By: 3/4/2020 23:59

**Excavation Date**: 3/6/2020 07:00

**Updateable On:** 4/18/2020  
Update by:4/27/2020 16:30  
Expiration Date: 6/1/2020

**Respond By 30**: 3/7/2020 23:59

**Respond By 60**: 4/2/2020 23:59

**Respond By 90:** 5/2/2020 23:59

Members

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Name | Facility Type | Phone |
| XYZ90 | XZY UTILITY – XYZ90 | Natural Gas | (123) 999-9999 [Main] |
| ABC123 | ABC UTILITY – ABC123 | Telecommunication | (777) 888-8888 [Main] |
| QQQ10 | Q WATER AND SEWER – QQQ10 | Sewer | (666) 666-6666 [Main] |
| GAUPC | GEORGIA UTILITIES PROTECTION CENTER - GAUPC | Other | (770) 623-4332 [Main] |

## HTML Ticket Field Definitions

**GA811 Locate Request For:** (LocateRequestFor) Service Area Code for the service area the ticket is being sent for.

**Ticket Number:** (TicketNumber) The ticket number that uniquely identifies the ticket. This is a date code and a serial number, separated with a hyphen.

**Date/Time:** (DateTime) The Date and Time the ticket was created.

**Previous Ticket:** (PreviousTicket) If this is an update of an existing ticket, the ticket number of the ticket which is being updated will be shown here.

**Ticket Type:** (TicketType) The type of ticket being sent.

**Sequence Number:** (SequenceNumber)

**Source:** (Source) The Source is “Voice” for tickets received by Georgia 811 over the telephone. Other sources will be available as we continue to implement functionality.

**Latitude:** (Latitude)

**Longitude:** (Longitude)

**CompanyName:** (CompanyName) The name of the excavator.

**CompanyStreetAddress:** (CompanyAddress)The street address for the excavator.

**CompanyCity:** (CompanyCity) The city name for the excavator’s address.

**CompanyState:** (CompanyState) The state for the excavator’s address.

**CompanyZIP:** (CompanyZIP) The ZIP code for the excavator’s address.

**Company Type:** (CompanyType) The type of excavator: Business, Contractor, or Homeowner.

**CompanyPhone:** (CompanyPhone) The phone number for the excavator.

**Caller Name:** (CallerName) Name of the person calling or submitting the ticket.

**CallerPhone:** (CallerPhone) The phone number of the person calling or submitting the ticket.

**CallerEmail:** (CallerEmail) The email address of the person calling or submitting the ticket.

**Field Contact:** (FieldContact) The name of the field contact.

**FieldContactPhone:** (FieldContactPhone) The phone number of the field contact.

**FieldContactEmail:** (FieldContactEmail) The email address for the field contact.

**Work Type:** (WorkType) The type of work being performed at the dig site.

**Project Duration:** (ProjectDuration) How long the excavator will be working on the dig site.

**Done For:** (WorkDoneFor)The person, company, or other entity for which the work is being performed.

**State:** (WorkState) The state the dig site is in.

**County:** (WorkCounty) The primary county the dig site is in.

**City:** (WorkCity) The city or place name where the dig site is located.

**Street:** (WorkStreetAddress, WorkStreetPrefix, WorkStreetName, WorkStreetType, WorkStreetSuffix) The street address of the dig site. The WorkStreetAddress is the numeric portion of the address, the prefix is a directional indicator (E,S, etc.). The WorkStreetType is the type of street (Rd, Ln, Ave, etc.). The suffix is directional, like the prefix.

**Cross Street:** (WorkIntersection) The name of the nearest cross street to the dig site.

**Explosives:** (Explosives) Yes/No, will explosives be used for excavation?

**Directional Boring:** (DirectionalBoring) Yes/No, will directional boring be used for excavation?

**White-Lined:** (WhiteLined) Yes/No, has the dig site been outlined with white paint?

**# W-Lined Areas:** (WhiteLineCount) Number indicating how many areas have been outlined with white paint.

**Preferred Response Type:** (PreferredResponseType)

**Locate Instructions:** (MarkingInstructions) Specific instructions to the locator from the excavator.

**Remarks:** (Remarks) Other information about the request, such as how to gain access to the site, etc.

### Damage fields

**Facility Type Dmg:** (FacilityTypeDamaged)

**Equip Type Used:** (EquipmentTypeUsed)

**Type of Line:** (TypeOfLine)

**Damage Extent:** (DamageExtent)

**ServiceIsOut:** (ServiceIsOut)

**Damaged On:** (DamagedOn)

**Crew On Site:** (CrewOnSite)

**Damaged Facilities:** (DamagedFacilities)

### Dates

**Commence On:** (LegalDate) Overhead tickets, the date the work will begin.

**Completed By:** (ExpirationDate) Overhead tickets, the date the work will be completed by.

**Excavate On:** (LegalDate) Large Project Meeting and Excavation tickets, the date excavation will begin.

**Expiration Date:** (ExpirationDate)The last day excavation can occur.

**Legal Date:** (LegalDate) The date and time when excavation can occur.

**Meeting Date:** (MeetingDate) Large Project Meeting, the date and time of the large project meeting.

**Respond By:** (RespondBy) The date and time responses in PRIS are due.

**Update By:** (UpdateBy) The last date and time the ticket can be updated.

**Updateable On:** (UpateableOn) The first date the ticket can be updated.

**Respond By 30**: first marking due date for members not marking according to the agreement

**Respond By 60**: second marking due date for members not marking according to the agreement

**Respond By 90**: third marking due date for members not marking according to the agreement

### Members

The following information is provided for each member on the ticket. Because these data tags are used multiple times, member data tags also include a code attribute, with its value set to the service area code it is associated with. For instance:

<data name="ServiceAreaName" code="XYZ01">XYZ, LLC TELECOM – XYZ01</data>

**Code:** (ServiceAreaCode)The service area code affected.

**Name:** (ServiceAreaName) The name of the service area, this will be the member name plus the service area code.

**Facility Type:** (ServiceAreaFacilityType) The type of facility the service area covers.

**Phone:** (ServiceAreaPhone) Relevant phone numbers for each member, based on the ticket type:

*Normal, Damage, Overhead:* Main and Damage phone numbers

*Emergency:* Emergency and Damage phone numbers

*All other types:* Main phone number.

## XML for Web Services

This format is designed for direct computer to computer exchange of data through the use of a RESTful API web service hosted by the member (or contracted by the member).

The Ticket.xsd schema file contains the XML schema for tickets sent by Georgia 811, and can be used to validate XML tickets recevied from Georgia 811. This file is in the same directory in the sample files as the sample XML files.

The table below shows the node hierarchy in the xml produced by GeoCall. The nodes marked with an asterisk only appear for certain types of tickets. For instance, the Damage node and its children only appear on Damage tickets.

For the Dates node, CreatedOn and TransmittedOn always appear, but the following dates appear for their ticket types only:

**Normal**

LegalOn

UpdateBy

ExpiresOn

RespondBy

UpdateableOn

**Design**

RespondBy

**Emergency Notification**

LegalOn

ExpiresOn

**Large Project Meeting**

MeetingDate

ExpiresOn

RespondBy

**Large Project Excavation**

RespondBy (to indicate if this will be marked according to the marking agreement)

RespondBy30 (first marking due date for members not marking according to the agreement)

RespondBy60 (second marking due date for members not marking according to the agreement)

RespondBy90 (third marking due date for members not marking according to the agreement)

**Overhead**

CommenceOn

CompletedBy

Other elements that appear only for certain ticket types are described in the Meaning column in the table below.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Element (Hierarchy)** | | | | | |  | **Meaning** |
| <Ticket> | | |  |  |  |  | Root Node, this will be assigned the namespace "http://www.georgia811.com/geocall/ticket/v1" |
|  | <OneCallCenter> | | | | |  | This will always contain the text "GA811". This is to identify us to members who take tickets from different states. |
|  | <TicketNumber> | | | | |  | The ticket number |
|  | <LocateRequestFor> | | | | |  | The service area code this ticket is being sent for. If this is a collapsed ticket, where multiple service areas are included on one ticket, each service area will be listed, separated with a forward slash. For instance, ABC01 for a single SA, or ABC01/ABC02 for multiple SA’s. |
|  | <SequenceNumber> | | | | |  |  |
|  | <PreviousTicketNumber> | | | | | | If this is an update or related ticket, the previous ticket number will be indicated here |
|  | <TicketType> | | | |  |  | The type of ticket |
|  | <TicketSource> | | | | |  | The source of the ticket. This will be "Voice" for calls, other types will be implemented as we progress. |
|  | <MeetingLocation> | | | | | \* | Large Project Meeting Only - the location of the meeting |
|  | <LastResponse> | | | | |  | This is for the last response for the member this is being sent to. This will allow us to communicate with members for large projects and additional requests. |
|  |  | <Code> | | |  |  | The response code |
|  |  | <Description> | | | |  | The description value for the response code |
|  |  | <Comment> | | | |  | Comment for the response |
|  | <Dates> | | |  |  |  | This contains the dates related to the ticket. The only exception to this is Damaged On, which is in the damage section |
|  |  | <CreatedOn> | | | |  | The date/time the ticket was created |
|  |  | <TransmittedOn> | | | |  | The date/time this notice was transmitted |
|  |  | <LegalOn> | | |  | \* | The date and time when excavation can occur |
|  |  | <UpdateBy> | | | | \* | The last date and time the ticket can be updated |
|  |  | <ExpiresOn> | | | | \* | The last day excavation can occur |
|  |  | <RespondBy> | | | | \* | The date and time responses in PRIS are due |
|  |  | <RespondBy30> | | | | \* | For Large Project Excavations, the first 30 day Respond By date (days 1-30) for members not marking according to the marking agreement |
|  |  | <RespondBy60> | | | | \* | For Large Project Excavations, the second 30 day Respond By date (days 30-60) for members not marking according to the marking agreement |
|  |  | <RespondBy90> | | | | \* | For Large Project Excavations, the third 30 day Respond By date (days 61-90) for members not marking according to the marking agreement |
|  |  | <UpdateableOn> | | | | \* | The first date the ticket can be updated |
|  |  | <CommenceOn> | | | | \* | For overhead tickets - when the project will be started |
|  |  | <CompletedBy> | | | | \* | For overhead tickets - when the project will be completed |
|  |  | <MeetingDate> | | | | \* | For LPMN tickets only |
|  | <Excavator> | | | |  |  | Contains information about the excavator |
|  |  | <Name> | | |  |  | The name of the excavator |
|  |  | <PhoneNumber> | | | |  | The phone number for the excavator |
|  |  | <Type> | | |  |  | The type of excavator: Business, Contractor, or Homeowner |
|  |  | <Address> | | |  |  | The street address for the excavator |
|  |  | <City> | |  |  |  | The city name for the excavator’s address |
|  |  | <State> | | |  |  | The state for the excavator’s address |
|  |  | <ZIPCode> | | |  |  | The ZIP code for the excavator’s address |
|  | <Caller> | | |  |  |  | Contains information about the person calling or submitting the ticket |
|  |  | <Name> | | |  |  | Name of the person calling or submitting the ticket |
|  |  | <PhoneNumber> | | | |  | The phone number of the person calling or submitting the ticket |
|  |  | <PhoneExtension> | | | |  | The phone number extension of the person calling or submitting the ticket |
|  |  | <Email> | | |  |  | The email address of the person calling or submitting the ticket |
|  | <FieldContact> | | | | |  | Contains information on the field contact |
|  |  | <Name> | | |  |  | The name of the field contact |
|  |  | <PhoneNumber> | | | |  | The phone number of the field contact |
|  |  | <PhoneExtension> | | | |  | The phone number extension of the field contact |
|  |  | <Email> | | |  |  | The email address of the field contact |
|  | <Work> | | |  |  |  | Contains information about the work being performed |
|  |  | <WorkType> | | | |  | The type of work being performed on the dig site |
|  |  | <DoneFor> | | |  |  | The person, company, or other entity for which the work is being performed |
|  |  | <Explosives> | | | |  | Yes/No, will explosives be used for excavation? |
|  |  | <DirectionalBoring> | | | |  | Yes/No, will directional boring be used for excavation? |
|  |  | <WhitePaint> | | | |  | Yes/No, has the dig site been outlined with white paint? |
|  |  | <WhitePaintCount> | | | |  | Number indicating how many areas have been outlined with white paint. |
|  |  | <Duration> | | | |  | How long the excavator will be working on the dig site |
|  |  | <ScopeOfWork> | | | | \* | For Large Project Meeting tickets only, the scope of work |
|  |  | <Address> | | |  |  | The Address for the dig site |
|  |  |  | <Street> | | |  | The street address for the dig site |
|  |  |  |  | <Number> | |  | The numeric portion of the address |
|  |  |  |  | <Prefix> | |  | The directional prefix (N, E, S, W, NE, etc.) |
|  |  |  |  | <Name> | |  | The street name of the dig site |
|  |  |  |  | <Type> | |  | The street type (Rd, St, Ave, etc.) |
|  |  |  |  | <Suffix> | |  | The directional suffix (N, E, S, W, NE, etc.) |
|  |  |  | <State> | | |  | The state the dig site is in |
|  |  |  | <County> | | |  | The primary county the dig site is in |
|  |  |  | <City> | |  |  | The city or place name the dig site is in |
|  |  | <CrossStreet> | | | |  | The name of the nearest cross street to the dig site |
|  |  | <DigsiteWKT> | | | |  | The Well Known Text for the buffered dig site |
|  |  | <LocateInstructions> | | | |  | Specific instructions to the locator from the excavator |
|  |  | <Remarks> | | |  |  | Other information about the request, such as how to gain access to the site, etc. |
|  | <Damage> | | |  |  | \* | Contains information specific to damage tickets |
|  |  | <FacilityTypeDamaged> | | | | \* | The type of facility damaged |
|  |  | <TypeOfLine> | | | | \* | The type of line damaged (Distribution/Main, Service/Drop, Gathering, etc.) |
|  |  | <DamageExtent> | | | | \* | The extent of damage (Nicked, Cut in two, etc.) |
|  |  | <ServiceIsOut> | | | | \* | Is service out? |
|  |  | <EquipmentTypeUsed> | | | | \* | Type of equipment in use when the damage occurred |
|  |  | <IsCrewOnSite> | | | | \* | Is the crew on site |
|  |  | <DamagedOnDate> | | | | \* | Date the damage occurred |
|  | <TicketText> | | | |  |  | This is the formatted ticket information, typically sent to locators as-is for emergencies |
|  | <Members> | | | |  |  | Member information for all members being notified about this ticket |
|  |  | <Member> | | |  |  | Contains the individual member information |
|  |  |  | <Code> | | |  | The service area code for the service area |
|  |  |  | <Name> | | |  | The name of the service area, typically the member name plus the service area code |
|  |  |  | <FacilityType> | | |  | The type of facility |
|  |  |  | <PhoneNumbers> | | | | Contains the relevant phone numbers for the member |
|  |  |  |  | <PhoneNumber> | | | Phone number information |
|  |  |  |  |  | <Type> |  | Main, Damage, or Emergency |
|  |  |  |  |  | <Number> | | The phone number corresponding to the type (Main, Damage, or Emergency) |
|  |  |  |  |  | <Extension> | | The extension for the phone number, if any |

## Daily XML Audit Format

Georgia 811 can deliver a daily XML audit report that includes information on every ticket delivered for the day to a web service endpoint. The audit is sent out shortly after midnight for the previous day. The Audit.xml file in the TicketSamples folder is a GeoCall generated sample of this format. Below is a sample, formatted for easier reading.

The Audit.xsd schema file contains the XML schema for audits sent by Georgia 811, and can be used to validate XML recevied from Georgia 811. This file is in the same directory in the sample files as the sample XML files.

<?xml version="1.0" encoding="utf-8"?>

<Audit xmlns="http://www.georgia811.com/geocall/audit/v1">

<OneCallCenter>GA811</OneCallCenter>

<AuditDate>4/7/2020</AuditDate>

<DeliveryOutput>GEORGIA UTILITIES PROTECTION CENTER - GAUPC - WS</DeliveryOutput>

<AuditCodes>GAUPC</AuditCodes>

<Tickets>

<Ticket>

<Type>Emergency Notification</Type>

<Sequence>1</Sequence>

<TicketNumber>200407-001001</TicketNumber>

<Status>Delivered</Status>

</Ticket>

<Ticket>

<Type>Normal</Type>

<Sequence>2</Sequence>

<TicketNumber>200407-001002</TicketNumber>

<Status>Delivered</Status>

</Ticket>

<Ticket>

<Type>Overhead</Type>

<Sequence>3</Sequence>

<TicketNumber>200407-001003</TicketNumber>

<Status>Delivered</Status>

</Ticket>

<Ticket>

<Type>Damage Notification</Type>

<Sequence>4</Sequence>

<TicketNumber>200407-001004</TicketNumber>

<Status>Delivered</Status>

</Ticket>

</Tickets>

<Totals>

<Normal>1</Normal>

<Cancel>0</Cancel>

<EmergencyNotification>1</EmergencyNotification>

<DamageNotification>1</DamageNotification>

<Overhead>1</Overhead>

<Design>0</Design>

<LargeProjectExcavation>0</LargeProjectExcavation>

<LargeProjectMeeting>0</LargeProjectMeeting>

<Resend>0</Resend>

<Total>4</Total>

</Totals>

</Audit>

Element Descriptions  
OneCallCenter – this node identifies Georgia 811 as the center delivering the audit

AuditDate – this is the date that all tickets contained in the audit were delivered

DeliveryOutput – this is the GeoCall identifier for the destination that the tickets were delivered to (the web service endpoint to which tickets were posted)

AuditCodes – this contains all the service area codes the audit covers

Tickets – contains Ticket elements for each ticket in the audit

Ticket – contains ticket information

Type – the Ticket Type for the ticket

Sequence – the sequence that this ticket was queued in GeoCall

TicketNumber – the Ticket Number

Status – the status of the Ticket, usually Delivered, but may also have other statuses, such as Failed

Totals – contains totals of each ticket type in the audit

Normal – the total number of Normal tickets in the audit

Cancel – the total number of Cancel tickets in the audit

EmergencyNotification – the total number of Emergency Notification tickets in the audit

DamageNotification – the total number of Damage Notification tickets in the audit

Overhead – the total number of Overhead tickets in the audit

Design – the total number of Design tickets in the audit

LargeProjectExcavation – the total number of Large Project Excavation tickets in the audit

LargeProjectMeeting – the total number of Large Project Meeting tickets in the audit

Resend – the total number of Resend tickets in the audit

Total – the total number of tickets in the audit (sum of all tickets)

## XML “Message” Format

Georgia 811 may send messages through it’s ticketing system as well. This type of messaging is useful for emergency situations to inform members of important information regarding the Georgia 811 service.

The Message.xsd schema file contains the XML schema for these messages sent by Georgia 811, and can be used to validate XML recevied from Georgia 811. This file is in the same directory in the sample files as the sample XML files.

The Message format for web service recipients is simple. The sample below includes whitespace for readability, the actual message does not contain whitespace (see the actual sample Message.xml in the samples):

<?xml version="1.0" encoding="utf-8"?>

<Message xmlns="http://www.georgia811.com/geocall/message/v1">

<OneCallCenter>GA811</OneCallCenter>

<Date>4/20/2020 3:17:08 PM</Date>

<MessageText>Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer id augue luctus, congue sapien vel, vestibulum mi. Praesent aliquam pulvinar est. Vestibulum turpis sem, accumsan in gravida at, consectetur ut nisi. Suspendisse potenti. Etiam et maximus sem. Proin vitae lectus ac justo feugiat euismod. Curabitur quis ex viverra, iaculis ligula in, dignissim libero. Nulla cursus magna et tortor malesuada faucibus.</MessageText>

</Message>

Element Descriptions  
OneCallCenter – this node identifies Georgia 811 as the center delivering the message

Date – this is the date that the message wassent

MessageText – the text of the message

# Web API Receiver

For members wishing to build automated tools, Georgia 811 has produced sample projects for building a web service to receive XML tickets, and a sample bulk response console application to demonstrate the use of the Bulk Response API. These samples utilize Microsoft’s .Net Core framework and tools, such as Visual Studio Community, which are available for no cost.

The use of Microsoft technologies is NOT required, however. You can use whichever technologies you prefer to build your web service or bulk responder. These samples can be used as a reference as you build in your preferred toolset.

## Project Files

The sample code is contained in the **GA811Demo** folder in the downloadable files. The GA811Demo.sln file is the Visual Studio solution file. If you open this file, Visual Studio will load both the Receiver.Api project and the BulkResponse.con project.

### Receiver.Api

This project is a .NET Core 3.1 Web API project that receives HTTP POSTs with an XML body containing the ticket information from Georgia 811. This Web API project utilizes Microsoft SQL Local DB to save the information in incoming tickets to a database. This demo uses common design patterns and tools, such as MVC, Entity Framework Core, and Dependency Injection.

The .NET Core Web API utilizes the Model-View-Controller pattern, though being an API, there are no views. Instead, the controller returns http response codes. There are two Controllers, the TicketController and the ErrorController. The TicketController is what is used to create tickets. The ErrorController is used to deliver error reports, if any occur.

**TicketController**

This controller has one method, CreateTicket, which accepts HTTP POSTs. This method will look at the POST body and try to serialize the POST into an XmlTicket (a class in the Serialize folder).

**ErrorController**

This controller also only has one method, which is called when any error occurs. This is setup in the Configure method of the Startup class.

This project also utilizes Entity Framework Core to interact with the database. Entity Framework uses classes in the Contexts, Entities, and Services folder.

**Contexts**

This contains the database contexts classes for EF Core. In this case, there is only one context, TicketContext, which is what EF Core uses to interface with the database.

**Entities**

The Entities folder contains classes that are used by EF to model the tables in the database. The IncomingTicket class is the main one. The IncomingTicket contains IncomingTicketMember’s, which in turn contain IncomingTicketMemberPhone’s. When EF writes an IncomingTicket object to the database, all the related information for the IncomingTicketMember’s and IncomingTicketMemberPhones to the database as well.

**Services**

The interface ITicketRepository is used in the Startup.cs class to loosely couple the TicketRepositorySQL class (an implementation of ITicketRepository) using dependency injection. This means you can create your own implementation of ITicketRepository to save the information to a different database provider, another API, or whatever you will be using to persist the data, then you can just register your implementation as what should be used instead.

**Serialize**

This folder contains many classes representing an incoming XML ticket. The XmlTicket class contains one or more of the other Xml\* objects. These classes match the format of the **XML for Web Services** format section above, and is used to deserialize the XML into an XmlTicket class.

IncomingTicket.CopyFromXml(XmlTicket xmlTicket)

This method requires special mention. The Entities\IncomingTicket class contains a CopyFromXml method that takes an XmlTicket object as a parameter. This is used to map between the de-serialized XML from the HTTP Post to the EF Entity class (IncomingTicket). You can use an automapper for this or define your own method for doing so. This was a relatively simple way to accomplish what we needed and allow us to deal easily with some data issues. You will see a few helper methods used by CopyFromXml as well.

**Health Check**

In the Configure method in Startup, you will see app.UseHealthChecks(“api/status”). This is middleware used to create a simple health check for the web service. This utilizes the AspNetCore.HealthChecks.SqlServer nuget package. It provides a way to check the health of the API. In this case, it is configured to make a connection to the database, and if successful, return “Healthy”. If unsuccessful, it returns “Unhealthy”.

There are more configuration options, including the ability to pass a query for the check as well. It is a very good idea to include a health check, as it allows you to use this to poll your API using a network monitoring tool, such as SolarWinds or WhatsUpGold, that can send you alerts when it is not responsive.

If you set up a Heath Check method in your API, or even a simple GET method that returns an OK response (HTTP 200), and provide that to Georgia 811, we can also test your API if there are ticket failures.

### BulkResponse.con

This is a console application that demonstrates how to use the GeoCall bulk response API to respond to tickets.

This console application demonstrates some classes that can be used to create ticket responses, send them to Georgia 811, and read the replies.

BulkResponder – This is a class that you can add TicketResponses to (using the AddResponse method), and once you have added all the responses you want in a batch, then invoke the Send() method. This writes the responses into an XML document, sends them to Georgia811, and returns the reply from Georgia 811. The reply is Deserialized as an XmlBulkReply object. This contains a reply for each ticket, indicating the result of the reply.

The Bulk Response API requires a username and password. This will be setup for you on the member test server once it has been deployed.

Please see the “GeoCall Bulk Positive Response Service.docx” file for the specifics on how to use the bulk response API, which this demo was built upon.

# Visual Studio Downloads

(Community, Code, and other editions)

The demo code projects can be used with several IDE’s. Visual Studio Community is a no-cost alternative to Professional or Enterprise, and has everything you need to edit and debug the projects. You can also use Visual Studio Code, or other editors. However, Visual Studio Community, Professional, and Enterprise include interfaces for connecting, browsing, and editing databases, and other tools that make it easier to develop .net applications.

<https://visualstudio.microsoft.com/downloads/>

**SQL Local DB**

<https://docs.microsoft.com/en-us/sql/database-engine/configure-windows/sql-server-express-localdb?view=sql-server-ver15>

**Web API with ASP.NET Core Tutorial**

<https://docs.microsoft.com/en-us/aspnet/core/tutorials/first-web-api?view=aspnetcore-3.1&tabs=visual-studio>

**ASP.NET Core Health Checks**

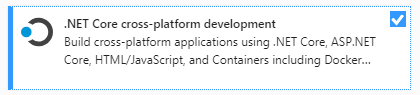
<https://docs.microsoft.com/en-us/aspnet/core/host-and-deploy/health-checks?view=aspnetcore-3.1>

# First Time Setup for Samples

After downloading the sample files, you can edit them immediately if you have Visual Studio or a similar development tool. If not, you can download and install Visual Studio Community to work with the samples.

## Installing Visual Studio Community

Download and start the installer from the site referenced above. When you get to the Workloads menu, be sure to select “.NET Core cross-platform development”.



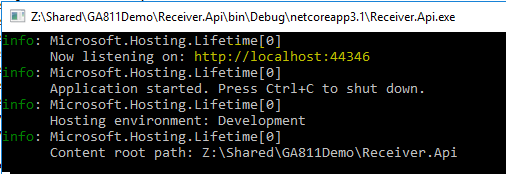
Then, continue the installation. Once the installation is complete, you may need to restart your computer.

## Opening the Demos

Extract the demo files from the zip file, and start your preferred development tool.

If you are using a version of Visual Studio, then from the Get Started screen, select Open a project or solution, and browse to the GA811Demo.sln file. Visual studio will load the project files, and it will automatically download the nuget packages for dependencies. You can see these dependencies in Solution Explorer under Dependencies, Packages.

You can press F5 or click on Debug, Start Debugging to start up the API. The API project is set as the start up project, and it is setup to use the console based web server. When you start debugging, you will see the console window pop-up, and you will see the local URL that it is listening on:



This is the base URL for the API. The Demo includes a health check feature that you can access in a browser by typing the health check URL in the address bar: <http://localhost:44346/api/status>. When you do this, the API will make a connection to the database, and if successful, return the text “Healthy” in the browser. If unsuccessful, the text “Unhealthy” will be returned. Give this a try while the console window is running. This will indicate that the demo is running successfully.

NOTE: the TCP Port, 44346 can be changed to anything you like. To do so, double-click the Properties item under the Receiver.Api project in Solution Explorer, and select Debug from the list on the left. Update the App URL at the bottom to use whatever port you like. This is used only for local development. When you publish this to a web server, the software will use whatever port the web server is setup for, ideally 443 for TLS connections.

## Connecting to the Database

The demo API uses SQLLocalDb, which is installed by default with Visual Studio. The demo uses the default SQLLocalDB instance (“MSSQLLocalDB”), and we’ll need to create the database and the tables needed for the demo API. This can be accomplished through several methods, but we are going to use VisualStudio to connect to the localdb server, create the database, and then execute the SQL scripts to create the tables. This method is closest to how most deployments are done in production with Database Administrators deploying the database for applications.

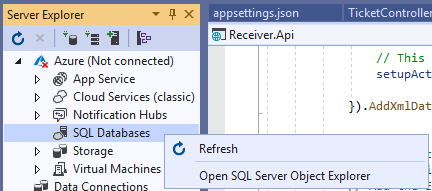
### Non-Visual Studio Considerations

SQLLocalDB can be installed separately if you are using a different development environment thanvisual Studio using the link in the tools section above. This guide does not go into specifics on how to use it outside of Visual Studio, but if you are interested in learning how to use this tool on its own, look for the SQLLocalDB command line tool, which is installed with SQLLocalDB. You will also need a tool to run SQL queries as well, such as SQL Server Management Studio, or sqlcmd. Both of these are tools available for free.

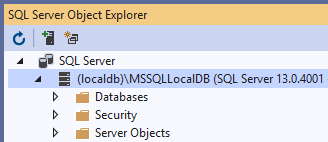
You can also use another version of SQL Server, if you like, such as Express or Developer, for testing and development, but this document does not describe their use.

### Visual Studio

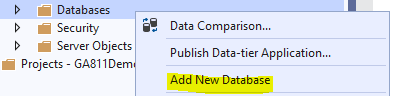
If you are using Visual Studio, you can open Server Explorer, and right-click on SQL Databases, and select Open SQL Server Object Explorer:



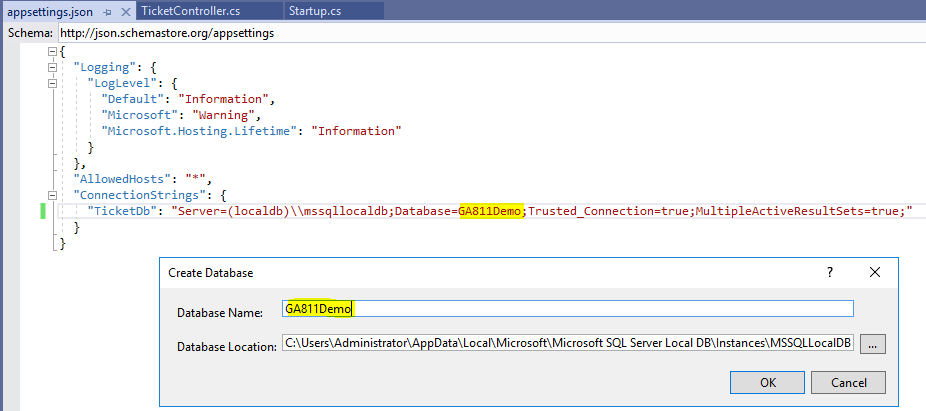
When SQL Server Object Explorer opens, right-click SQL Server and select Add SQL Server. In the connect dialog, expand Local, and you should see MSSQLLocalDB. Select that instance and click Connect. You should see the database connection, like this:



We need to create the database for the API, and add the tables for it. Right-click the Databases folder, and select Add New Database:

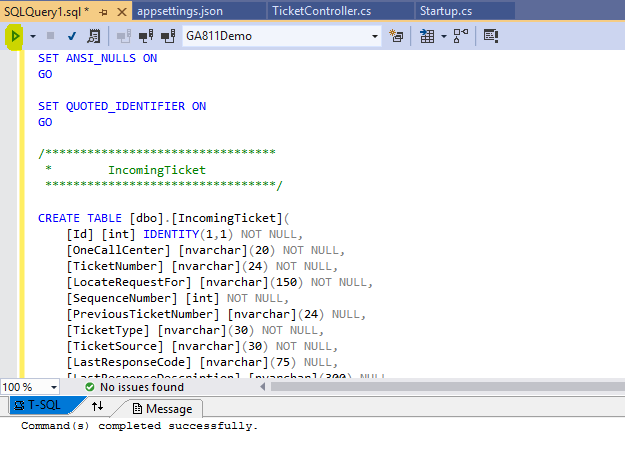


In the Database Name field, enter GA811Demo. This is the name of the database in the appsettings.json file, which is where the database connection for the demo project is defined. If you use another database name, make sure you update the appsettings.json file with the new database name:

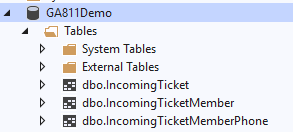


Once the database is created, right-click the GA811Demo database and select New Query…

Included with the samples, there is a folder called DBScript, and there is a file called CreateTables.sql in that folder. Copy the contents of that file into the new query window (SqlQuery1.sql) in Visual Studio. Then, click the green Execute (play) button:



You should see the message “Command(s) completed successfully.” You should also be able to expand the Tables folder under the GA811Demo database and see three new tables:



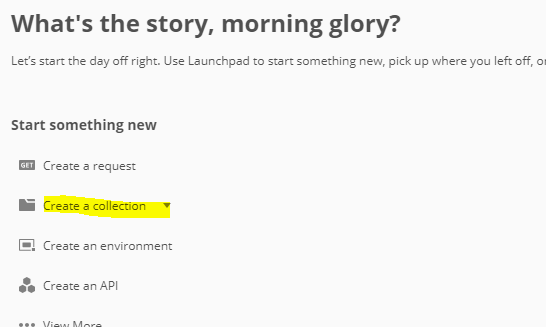
With this complete, your system is now ready to receive incoming tickets. Well, at least from a development system. The next section describes a method of sending test tickets to your API using a tool called Postman.

## Sending Tickets to the API Using Postman

Postman is an API development tool that allows you to setup HTTP requests, complete with headers, query strings, and bodies, so you can test an API as you develop it. This allows you to run your API locally on a development computer as we are with Visual Studio, without involving a web server and without having to develop a test app to issue these web requests.

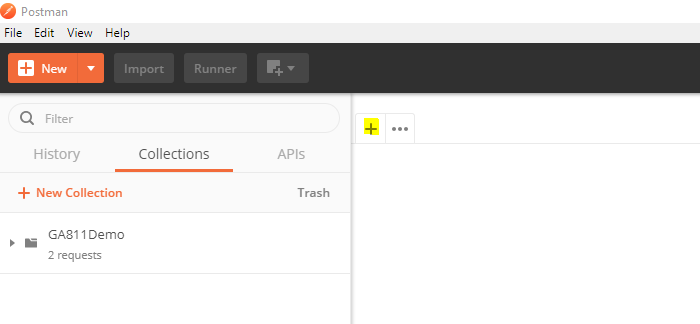
You can download the postman application at postman.com. You will need to create a (free) account to do so. You will also use this account to log in to postman when you use it.

Once you open Postman, Click on Crate a collection from the Launchpad:

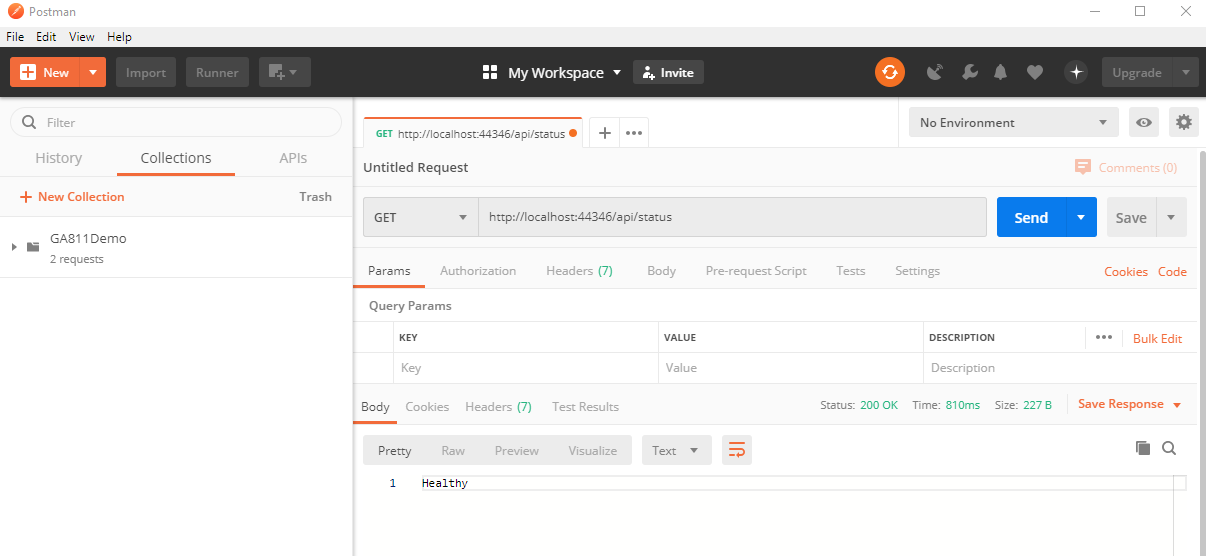


Alternatively, click on the Collections tab, and then click on the + New Collection item.

Call the collection GA811Demo. With this new collection open, click on the + icon in the workspace to add a new request:



In the request, make sure ”GET” is selected as the verb, and enter <http://localhost:44346/api/status> as the URI, and click Send. You should get back the Healthy response as you did before in the browser (see **Opening the Demos** above):

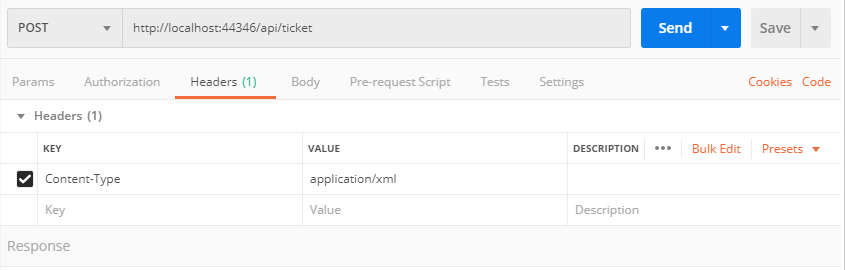


Click Save to save this request to the GA811Demo collection. Type in Health Check as the request name, and select the GA811Demo collection, then click the Save to GA811Demo button. This allows you to open this request up any time and send it.

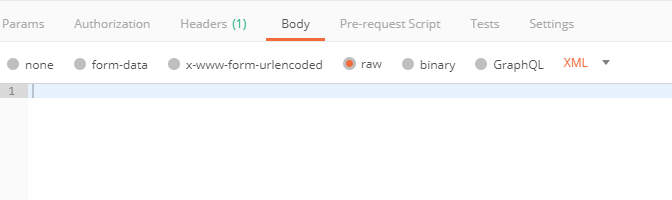
### Sending a Test Ticket

In the sample files, there are xml documents that are test tickets generated by Georgia 811’s new system. These are in the TicketSamples folder. We will create a new request that will allow you to post one of those sample tickets to the demo API.

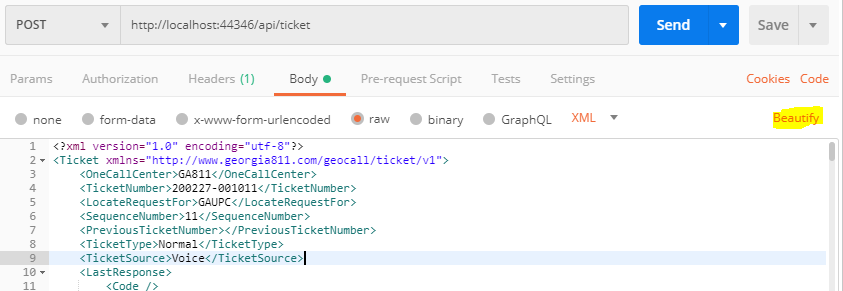
Click the + to create a new request. Change the verb to POST, and enter the URI <http://localhost:44346/api/ticket>. Click on Headers, and add a header named “Content-Type” and set the value to “application/xml”:



Next, click on Body, and select the “raw” radio button:

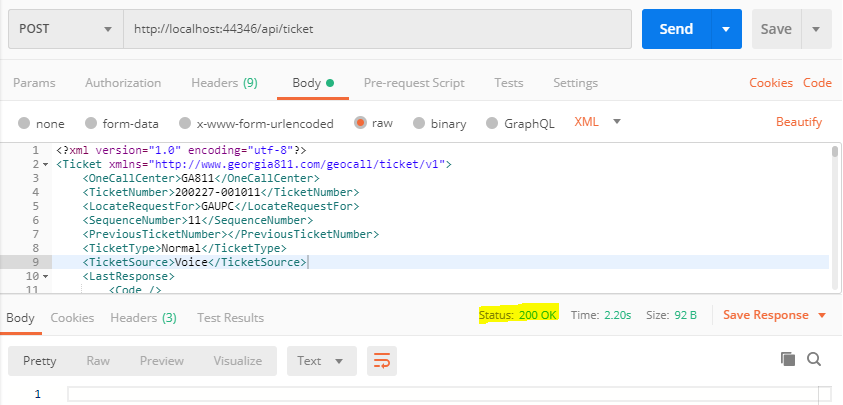


Copy the contents of the Normal.xml file from the TicketSamples folder and paste it into the body. You can click on the Beautify button to have Postman display the XML in a more human-readable format. This is useful for troubleshooting:



Save this request as “Add Normal Ticket”.

Click on Send, and wait for a response. In this case, we should get back an HTTP 200 response code with no body:



You can now check the database to make sure the ticket information has been written successfully to the database.

You can create requests for each ticket type in Postman, pasting in the appropriate xml content for each ticket type. This will allow you to test the API for each ticket type to use as a baseline as you develop your own receiver API.