



# TXT29-1-1<sup>®</sup> Web Service Guide

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# Contents

- 1. Introduction..... 1
- 2. Service Overview ..... 1
  - 2.1. Service Features ..... 1
  - 2.2. Customer Provided Public Internet ..... 3
  - 2.3. TXT29-1-1 Failover Protection ..... 3
- 3. Severity Levels ..... 3
  - 3.1. Severity Level 1 ..... 4
  - 3.2. Severity Level 2..... 4
  - 3.3. Severity Level 3..... 4
  - 3.4. Severity Level 4..... 4
- 4. Responsibility Matrix ..... 4
  - 4.1. Intrado Responsibilities ..... 5
  - 4.2. Customer Responsibilities..... 5
- 5. Service Limitations and Disclaimers ..... 5



## 1. Introduction

This service guide describes Intrado's TXT29-1-1 Web Application (the "Service"). Service enables a PSAP to communicate with a wireless subscriber making an emergency service request using short message service ("SMS") text messaging. The TXT29-1-1 Web provides a messaging gateway and communications for interface for emergency service requests sent via SMS to the PSAP using the short code 9-1-1.

Intrado's network is able to simultaneously process, route, and track emergency text dialogs for multiple TXT29-1-1 Web customers. On receipt of a new SMS message, The Intrado network requests the cell sector location of the emergency caller and routes the SMS based on the location of the emergency caller and the associated PSAP jurisdiction. A session is established between the Text Control Center ("TCC") and the Web workstation with an audible indication on the workstation that there is a new text message. An available call taker selects the OPEN button to answer the request and to send and receive text messages with the emergency caller, referred to as a text dialog.

## 2. Service Overview

### 2.1. Service Features

Service includes the following features:

- Alert to call taker that an emergency text message has arrived
- Ability to accept, complete, and place in queue any incoming text messages
- Ability to display the Request Initiator location as an in-band message
- Log retention of text dialogues
- Implementation services, Training, and Customer Technical Support
- Compatibility with all participating wireless carrier SMS networks
- Geographically redundant TCC
- Transfer capabilities
- Private chat
- Back-up/Failover function
- MMS acceptance
- Location rebid

Only text messages where the location appears to fall within Customer's defined text enabled PSAP boundaries will be routed into the PSAP message queue.

#### 2.1.1. Internal Transfer

TCC now supports a variety of "in-band" commands that can be sent by the PSAP to invoke certain feature-specific actions on the TCC. Transfer is initiated utilizing the #T command.

- Allows 2 PSAPs to correspond privately utilizing the #P command
- Conference in another PSAP
- Transfer text dialog to another PSAP
- Upon a PSAP transfer the LAST known location is forwarded, in the initial message.
- Airbus Vesta CPE PSAPs utilize their own transfer ability and not this in-band TCC command. Their internal transfer ability is developed within their own software.

#### 2.1.2. External Transfer

External PSAP transfer extends the existing transfer function utilizing the same #T command to prompt a transfer.

- External PSAP transfer allows for transfer of TXT29-1-1 dialogs to PSAPs using a different TXT29-1-1 TCC provider, other than Intrado.
- In order to utilize the external transfer function the PSAP must be Intrado text enabled.
- The PSAP receiving the transfer does not need to be Intrado text enabled.

- External transfer operates like the internal Intrado PSAP transfer functionality.
- Upon text enablement with Intrado, key words will be established for selected PSAPs to support transfer.
- Upon text enablement with Intrado, settings can be configured to allow for multiple transfers of a text dialog, allowing for an unlimited amount. The default setting for multiple transfers is 10.

### **2.1.3. Back-up/Failover**

Back-up/Failover allows for a PSAP to designate an alternate PSAP to receive its TXT29-1-1 messages if the PSAP does not answer a text within 30 seconds. This is an optional service.

- Designation of a primary and secondary PSAP
- Messages continue to try the primary
- Route to secondary after 30 seconds if no answer (this is a universal setting, non-configurable)

### **2.1.4. Location Update**

TCC allows the special command, called the “locate command”, to obtain updated location information of an emergency texter. Specific keywords provide the PSAP call taker with the ability to request a location update for an active dialog.

- #L is the command used by the PSAP call taker.
- Upon a PSAP transfer, the LAST known location is forwarded in the initial message.

### **2.1.5. Media Delivery Configurable by Carrier & PSAP**

Media and media notifications are available to PSAPs that opt-in for receipt. The PSAP will opt-in or out at the time of requesting service. A project is underway to address the PSAPs that are already text enabled that want to establish MMS delivery in the below outlined method.

How it works:

- PSAPs pre-configure three email addresses where TCC will auto-send media files. This removes the need for PSAPs to call Intrado to retrieve their media files.
- PSAPs can have the ability to choose whether they would like to receive MMS files or not. The default, upon deployment, is set to not send MMS. If the PSAP chooses to shut MMS off after opting in, they need to put in a ticket with the help desk for Mobility Sys Admin.
- If the PSAP call taker does not have immediate access to the pre-configured mailbox(es) receiving the media files, an in-band command can be initiated to have the media sent immediately to an email of its designation ex. #email Janedoe@psap.com. The PSAP policy will dictate if the call takers utilize this command.
- A PSAP will be able to transfer media files to another PSAP. Example- If PSAP A initiates a transfer to PSAP B as long as PSAP B elects to receive media, the files are transferred. If PSAP B has opted out of receiving media files, they will remain logged at PSAP A.
- Group MMS messaging is not available. Example: The texting party is having a heart attack and text messages 9-1-1 and their spouse. The message will go through to 9-1-1. It is the responsibility of texting application provided by the carrier to manage this situation, NOT TCC.
- MMS size limitations are based on what the carrier can accept. The default is set to 5MB which is the largest carrier requirement encountered to date. If this increases in the future, we can scale to the increased limits required by the carrier.
- If a carrier does not deliver MMS to a PSAPs jurisdiction that PSAP cannot accept MMS from that carrier.
- MMS plain text is delivered to the PSAP in its original state uninterrupted. If non-text MMS media is received and the PSAP is not prepared or has not opted in to receive MMS, the non-text media is not sent to the PSAP and a message is sent to the texting party informing them that the image, video, audio, etc. was not delivered to the PSAP.

### **2.1.6. Configurable Timeout Timer**

The TCC has a configurable timer that will terminate the text dialog after a period of inactivity. The default time value is 120 minutes. The timer can be applied on a per PSAP basis. When the activity timer triggers, the TCC sends a canned message to the texter informing them that the session has timed-out.

### **2.1.7. Daily Operational Support and Escalation Procedures**

Intrado will provide daily operational support to the extent outlined in the service order for Customer. Intrado will provide appropriate contact information to Customer. Intrado is dependent on Customer or Customer's PSAP to provide timely and accurate information to resolve problems. Failure of providing timely and accurate information to Intrado will impair the ability to resolve escalated incidents.

### **2.1.8. Subpoena Compliance**

Intrado will reasonably comply with requests made by Customer for specific subpoena-related audit record data. Intrado can accommodate most requests within five business days, provided that the request contains the full call back number (wireless text call), PSAP name, and a specific date and time. Requests for data that are vague or require extensive research will not be processed until additional detail is provided by Customer.

Requests that require extensive research will be subject to additional charge.

### **2.1.9. System Audit Records**

Intrado will store system audit logs for the Intrado systems involved in 9-1-1 text processing. For example:

- Text service transcripts

Intrado stores system audit logs for minimum one year. Intrado can provide pricing for data recovery past the service order term, on request.

## **2.2. Customer Provided Public Internet**

Customer provided public Internet access is required for establishment of Service. The public Internet bandwidth will be dependent upon the agreements established by the PSAP and their Internet Service Provider ("ISP").

Although the actual bandwidth usage for Service is very small, it is recommended to provide a 3Mbps connection to ensure traffic congestion does not provide a slow Internet experience.

## **2.3. TXT29-1-1 Failover Protection**

Application Layer Failover: In cases where the routing to the primary PSAP TXT29-1-1 has failed, the TXT29-1-1 TCC can be configured to route to an alternate PSAP. The alternate PSAP must be a separate physical facility and have its own primary NENA PSAP ID ([FCC 9-1-1 Master Registry](#)). This failover capability only exists for host-remote/multi-node/ESInet solutions where the primary and secondary PSAPs each has its own primary PSAP NENA IDs. This failover occurs 30 seconds after the Intrado TCC fails to connect to the primary PSAP. Establishment of the alternate PSAP is associated with the provision of Service.

## **3. Severity Levels**

Intrado will address all service issues, whether identified by Intrado or by Customer, according to the Intrado-confirmed Severity Level. Severity Levels determine the appropriate contact procedure and the actions that will be taken by Intrado for initial notification time, status update time, and incident management.

Following are service disruption definitions and procedures for each Severity Level and the response time goals for each Severity Level.

### 3.1. Severity Level 1

Severity Level 1 is only covers Voice and ALI delivery. It does not apply to Service.

### 3.2. Severity Level 2

Intrado systems supporting Service are completely inoperative or severely impacted, resulting in complete loss in delivery of Service.

Resolution Procedure: Intrado will apply immediate and sustained effort until a resolution is in place. If a resolution cannot be readily identified, Intrado will initiate internal escalation procedures to assure resources are appropriately assigned for problem resolution efforts.

### 3.3. Severity Level 3

Intrado systems supporting Service are impaired, where major functions are operative but functioning at limited capacity or critical elements are no longer redundant.

Resolution Procedure: Intrado will correct Service disruption or provide a procedure for the PSAP to bypass or work around such disruption in order to continue operations if possible. If a bypass procedure is utilized, Intrado will provide PSAP with an action plan for the development of the final resolution, and Intrado will continue resolution activity until full service is restored to PSAP.

### 3.4. Severity Level 4

Intrado systems supporting Service are impaired and some functions are not operating, but those functions are not mandatory or critical to 9-1-1 text delivery or are considered minor or cosmetic and have only a minor impact on usability.

Resolution Procedure: Intrado will address via standard maintenance procedures during Intrado normal business hours. If a software fix is required, Intrado will provide a fix during the next scheduled software release.

## 4. Responsibility Matrix

The following matrix outlines the typical responsibilities of each party for the implementation and ongoing provision of Service. Where both parties have been listed, additional detail on the responsibilities of each party is included in the sections below. Failure of a party to satisfactorily complete a required task could materially impair Intrado's ability to provide Service.

Task	Responsibility
<b>Project Implementation</b>	
Project Management	Intrado
Develop Intrado Methods and Procedures	Intrado
PSAP Facilities	Customer
PSAP Facility Site Preparation (floor space, power, etc.)	Customer
PSAP Data Collection	Intrado/Customer
Text Routing	Intrado
Online Training Materials	Intrado
End to End Testing of Service Prior to Production	Intrado/Customer
Production Turn-up of Service	Intrado/Customer



Task	Responsibility
<b>Ongoing Responsibilities</b>	
TCC Log Storage and Backups	Intrado
TCC Network Maintenance	Intrado
TCC Network Monitoring	Intrado
Public Internet Service Maintenance	Customer
Text Application Upgrades	Intrado
Text Log Storage and Backups	Intrado
Maintain Intrado Methods and Procedures	Intrado
Problem Reporting, Triage and Resolution	Intrado/Customer

Table 1: Responsibility Matrix

#### 4.1. Intrado Responsibilities

Intrado will provide and maintain geographically redundant TCC systems.

Intrado will interconnect with Wireless Carrier SMS hubs to route SMS generated by the participating Wireless Carrier subscribers to Customer PSAP. Only 9-1-1 text traffic originating from the participating Wireless Carrier subscribers will be routed to Customer(s).

Intrado will monitor and alarm the Intrado Network to proactively detect any hardware application failures.

When Intrado detects a service affecting event, or upon request by Customer, Intrado will perform troubleshooting for issues that are within the direct control of Intrado for IP connectivity to the SMS provider. Intrado will contact the SMS provider, as necessary, for support issues related to SMS network.

#### 4.2. Customer Responsibilities

Customer will provide personnel to participate and help execute the end-to-end system acceptance test plan. Customer participation includes providing End-Users to receive and process test text messages at pre-scheduled timeframes.

Customer will ensure that the workstations have been upgraded to current versions of browser capable of supporting the required SMS functionality.

Customer will provide Internet access conforming to minimum requirements as specified in Section 2.2 above.

Customer will not impair or prevent Intrado's ability to provide Service. If such occurs and is not remedied within 90 days of Intrado's request to proceed and with all parties acting in good faith, then CPE Provider will be obligated to compensate Intrado for services rendered and/or for cost incurred to put the infrastructure in place to attempt to render Service.

Note: This activity may include coordination between Intrado and Customer's appropriate technical and operational groups to assure a solid understanding of the network architecture, data exchange procedures, PSAP needs, standard operational procedures, and services as designed for Customer.

### 5. Service Limitations and Disclaimers

The following service limitations and disclaimers apply:

- Intrado's responsibility for text message routing and processing begins when text messages have been delivered to the Intrado TCC and is limited to the routing and delivery of text messages from

Intrado to the identified demarcation point. Intrado is not responsible for the delivery or timing of SMS Request for Assistance text messages through the carrier networks.

- Network failures could result in Service being temporarily unavailable. Due to the SMS network and/or wireless carrier servers, new and in-process text dialogues could be delayed or lost.
- End-User cannot initiate a text session with a caller.
- User interface will not bid the ALI system nor receive an ALI response for text messages. No ALI-like data will be provided for text messages.
- Service is an emerging technology and is not a replacement for established landline and wireless 9-1-1 services. Service relies on industry SMS infrastructure which is not built to public safety standards, and may include increased latency and the potential for dropped messages.
- Service requires that mobile phones must be text-enabled and be capable of sending properly formatted text messages.
- Intrado has no control over the truncating and sequence delivery of SMS messages.
- Intrado has no control over the character count limitations per device and/or carrier network.
- Intrado has no control or authority to mandate the content of bounce back messages.
- Intrado has no control of routing messages that do not come to the Intrado TCC.
- Intrado has no control over improper routing of SMS messages from third party TCC providers.
- Intrado Outage Notification is limited to Intrado systems and will not include carrier network specific information.
- Intrado's responsibility for service performance is limited to its equipment and Intrado-provided network.
- Customer understands and accepts that the overall service availability of Customer-provided Internet path will be impacted by the reliability of the Internet connection provided by Customer. Customer takes sole responsibility to restore the Internet connection with its selected ISP.
- A transfer initiated must be initiated from a PSAP using the Intrado TCC. However the transfer can be destined for a non-Intrado TCC PSAP.
- Transfers delivery may be limited to the primary PSAP designated within a circle shape file. The shape file is determined by the PSAPs TCC provider.
- Airbus Vesta CPE PSAPs can use the external transfer capability.
- Backup/Failover is an optional feature.
- Backup/Failover feature will allow auto failover to the designated secondary PSAP after 30 seconds of the text not being answered at the primary PSAP.
- Intrado is limited to providing updated location information based on what is provided from the carriers commercial location servers.
- Intrado is not responsible for the delivery of MMS to the TCC.
- Intrado will only email the MMS to the pre-configured email addresses provided by the PSAP.
- MMS will only be delivered to a PSAP that requests MMS delivery.