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1. Introduction

This Service Guide describes Intrado’s Emergency Routing Service (“ERS”) Canada services (“Services”). Services provide organizations with a 911 termination service that routes Emergency Calls to the appropriate PSAP based on User’s provisioned location. The definitions in Section 6 below will apply to this Service Guide.

The Canadian Radio-television and Telecommunication Commission (“CRTC”) requires that all VoIP 911 calls be routed to a call center (referred to as Emergency Services Department in the CRTC documentation). This call center will have access to User’s provisioned address and will confirm User’s location verbally. Once the location has been confirmed, the Emergency Call is routed to the appropriate PSAP using trunks enabled with Zero-Dialed Emergency Call Routing Service (“0-ECRS”) provided by the LECs.

2. Services Features

2.1. Emergency Call Flow

Figure 1 depicts an Emergency Call made from a User in Canada.

a. Customer validates User and location records in the ERS Provisioning Server using the ERS Portal or ERS API. These records are then stored in the National ALI Database.
b. A User makes an Emergency Call. The Emergency Call is routed from the enterprise’s IP-PBX or UC system via SIP or PSTN to the 9-1-1 Call Server.
c. The 9-1-1 Call Server retrieves the location of the User from the National ALI Database and routes the Emergency Call to the ECRC.
d. The ECRC retrieves User’s location record from the National ALI Database.
e. The ECRC operator verbally confirms User’s address. The Emergency Call is then routed to the PSAP using the mapped 0-ECRS routing number. The PSAP receives the Emergency Call and obtains User’s name, callback number, and location information from the ECRC operator. The ECRC operator puts the PSAP in touch with User.
f. In a failover/unprovisioned Emergency Call scenario, the 9-1-1 Call Server directs the Emergency Call to the ECRC for User location verification and routing. In a SIP connectivity failure scenario, the Emergency Call is routed directly to the ECRC via PSTN by Customer.

2.2. Services Components

Table 1

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERS Portal</td>
<td>The ERS Portal is a web-based dashboard with administrator access to the ERS account for configuration, record provisioning, and reporting.</td>
</tr>
<tr>
<td>ERS API</td>
<td>The ERS API enables Customer to automatically add, modify, and delete locations and Users through integration with its user management tools.</td>
</tr>
</tbody>
</table>
## Component Description

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>National ALI Database</td>
<td>The 9-1-1 National ALI Database contains the address and location records for all ERS users for all Canadian Provinces and Territories. It is accessed by ECRC and verbally relayed to the PSAP when a 911 call is received.</td>
</tr>
<tr>
<td>9-1-1 Call Server</td>
<td>The 9-1-1 Call Server receives Emergency Calls and determines the appropriate routing actions based on the location of the User and relevant call routing configurations.</td>
</tr>
<tr>
<td>ECRC</td>
<td>ECRC handles all Emergency Calls, including unprovisioned and failover Emergency Calls. The ECRC is staffed by APCO-certified dispatchers, who orally confirm the User’s location and transfer the Emergency Call via the 0-ECRS routing number in order to reach the appropriate PSAP.</td>
</tr>
</tbody>
</table>

### 2.3. Services Specifications

**Table 2**

| Data Centers | • Geo-Redundant Data Centers  
|              | • Active-Active load-balanced call servers  
|              | • Flexible connectivity via Internet, VPN, NNI |
| Emergency Call Delivery | • SIP and PSTN connectivity  
| | • Network monitoring with SIP options  
| | • SIP UDP/TCP protocols  
| | • RTP/UDP with G.711  
| | • Configurable dial plans for emergency and test calls  
| | • Individual PSTN number for routing contingency on failover |
| Integrations | • Intrado Emergency Gateway  
| | • Certified with Skype for Business  
| | • Cisco Emergency Responder with native integration for provisioning  
| | • Certified with Avaya Aura Communication and Session Managers  
| | • Most IP-PBX/UC platforms and softswitches using SIP trunking |
| ECRC | • APCO-trained Emergency Call takers  
| | • 24/7/365 operations  
| | • Canadian address confirmation and 0-ECRS routing  
| | • Support for unprovisioned Emergency Calls and remote workers; back-up answering point for contingency routing |
| Test Calls | • Built-in testing with configurable test call number  
| | • Playback of call details including address and 9-1-1 coverage  
| | • Two-way audio verification  
| | • Email confirmation of every test call with results |
| 9-1-1 Call Notification | • Email alert with location details  
| | • SMS-formatted alerts  
| | • Support for Skype for Business Notification URI |
| Security Desk Call Monitoring | • Conference security personnel for real-time call monitoring  
| | • Security phone number configurable per location  
| | • Configurable one-way or two-way audio  
| | • Support for Skype for Business Security Desk URI |
| Address Validation and Provisioning | • Real-time address validation and geocoding |
Administrative ERS Portal
- Secure portal for service administration
- Easy provisioning of records
- Batch files for bulk provisioning
- User profiles for managing access levels
- Individual sub-accounts for separating access to records and reports
- Comprehensive reporting: call records, locations and subscriber, provisioning audits
- Optional Portal branding for Service Providers

2.4. Maintenance and Support

Table 3

<table>
<thead>
<tr>
<th>Technical Support Center (“TSC”)</th>
<th>Customer support and troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24/7/365 Emergency number</td>
</tr>
<tr>
<td></td>
<td>Email and Web support</td>
</tr>
</tbody>
</table>

| Network Operation Center (“NOC”) | 24/7/365 Network monitoring |

2.5. Other

Table 4

<table>
<thead>
<tr>
<th>Documentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERS Technical Support Policies</td>
</tr>
<tr>
<td>ERS Network Interface Guide</td>
</tr>
<tr>
<td>ERS Portal User Guide</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standards Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>NENA i2 (08-001)</td>
</tr>
<tr>
<td>SIP: 2543, 3261, 2976, 3265, 3262, 3325, 3863, 4119, 5139</td>
</tr>
<tr>
<td>RTSP: 2326, RTP: 1889, SOAP: 3902, SSL 3.0</td>
</tr>
</tbody>
</table>

2.6. ECRC

Failover Emergency Calls will be routed to the ECRC via an SBC/PSTN gateway. The ECRC is staffed continually by professionally trained personnel who obtain the User’s location information and deliver the Emergency Call and location information to the appropriate PSAP. Where possible, the ECRC will route the Emergency Call to the PSAP using i2 protocols.

Table 5

<table>
<thead>
<tr>
<th>Call Situation</th>
<th>ECRC Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call with location, no location, or wrong location at ECRC</td>
<td>ECRC Emergency Call taker confirms location, makes any necessary corrections, and routes Emergency Call to PSAP, based on actual location of the User.</td>
</tr>
<tr>
<td>Dropped Emergency Call with location</td>
<td>Emergency Call taker informs appropriate PSAP, and PSAP follows internal SOP to callback the User and dispatch emergency responders.</td>
</tr>
<tr>
<td>Dropped Emergency Call with no location</td>
<td>Emergency Call taker uses other means to contact the Customer associated with DID, to determine location of the User. Emergency Call taker then informs appropriate PSAP, and PSAP follows internal SOP to callback the User and dispatch emergency responders.</td>
</tr>
</tbody>
</table>
3. Customer Responsibilities

Customer will ensure that accurate and current Endpoint Data is entered into the Interface for each Endpoint, or that Endpoint Data is provided at the time of the Emergency Call.

If required by applicable telecommunications carriers or applicable law, Customer will provide Intrado with written authorization to work with the telecommunications provider on Customer’s behalf for the purpose of establishing interconnections between Intrado, Customer and/or the telecommunications carrier that are necessary to enable Intrado to provide Services.

Customer will only use Services for the routing of Emergency Calls and for no other purpose and will take all reasonable steps to ensure that Services are not used for any other purpose by its Users.

Customer will be responsible for providing, at its cost, all facilities and networks required to operate with and interconnect to Services.

Customer will regularly configure, monitor, and manage its network and equipment to ensure that there is no interruption in connectivity with Services.

If either Customer or Intrado becomes aware of any security vulnerability that arises from the interconnection of Services with Customer’s networks and equipment, the parties agree that they will provide all reasonable cooperation to promptly address such vulnerabilities.

Customer will comply with all applicable laws in relation to its use of Services to provide emergency dialing services to Users.

4. Intrado Responsibilities

Intrado will provide to Customer a web based management interface (“Interface”). The Interface will allow either Customer or a User to provision Endpoint Data into the National ALI Database. The Interface will allow Customer or each User to update the Endpoint Data using only User or Customer premises or equipment necessary to access its VoIP telephone service. If the Endpoint Data is not provisioned in the Interface by either Customer or the User, then the Endpoint Data must be provided with the Emergency Call.

Intrado will provide, at its cost, all facilities, software, equipment, and necessary interconnect circuits required to operate Services.

Intrado will regularly configure, monitor, and manage its network and equipment to minimize any interruption in connectivity with Customer’s network.

Intrado will use commercially reasonable efforts, consistent with industry practices and standards, to (a) maintain the security of Services and the facilities in which Services’ servers reside; and (b) protect against the introduction of any “virus” into Services or into Customer’s network.

5. Services Limitations and Disclaimers

The following Services limitations and disclaimers apply:

5.1. Suspension of Services

Intrado may temporarily suspend Services, if:

- Customer’s equipment or network causes damage, or in the reasonable opinion of Intrado, is likely to cause damage to Intrado’s equipment, databases or networks;
- Customer’s use of Services disrupts the normal use of Services for other customers of Intrado; or
- Customer is past due in making undisputed payment to Intrado under this or any other agreement between the parties, provided that Intrado has delivered to Customer written notice that payment is past due and Customer has failed to cure such default within ten business days thereafter.

Intrado will promptly notify Customer on any suspension of Services.
5.2. Audit Right

During Services term and for a period of one year thereafter, Intrado (or its authorized representative) may request from Customer documentation to verify billing and payment accuracy. Such documentation will be specifically described by Intrado and will consist of reports generally maintained in or that may be generated by the systems utilized as part of Services. Customer will provide such documentation within ten business days. Intrado may not audit more than once in any 12 month period. On receipt of the documentation, Intrado will promptly audit such records and provide Customer the results of such audit. Customer will have ten business days to dispute such results and if such a dispute exists, the parties will work in good faith to resolve the dispute. If any audit establishes that Customer underpaid Intrado by more than five percent of the amount due for the period examined, Customer will pay to Intrado its reasonable expenses incurred for such audit, in addition to any amounts shown to be underpaid, within 30 days after the date of written notice from Intrado. If any audit establishes that Customer has overpaid Intrado, Intrado will credit Customer the amount of the overpayment within two invoice cycles from the date of the determination of Customer’s overpayment.

5.3. Other Limitations

Services may not function correctly, or at all, in the following circumstances:

- if Customer’s equipment or network fails, is not configured correctly or does not meet the system specifications for use with Services;
- due to a network outage, extended power failure or network congestion that it is outside the control of Intrado or its suppliers;
- if Customer fails to provide and maintain current and accurate Endpoint Data; or
- if the Emergency Call taker does not promptly or properly answer or route the Emergency Call, or if errors or omissions are made by the PSAP or the local exchange carrier servicing the PSAP.

Customer acknowledges and agrees that Intrado will not be liable for any Services outage, degradation or error, or any inability to, or delay in, accessing emergency service personnel due to any of the circumstances described in this Section 5.3 above.

6. Glossary

These definitions are for this Service Guide only and are not necessarily the definitions used by the Federal Communication Commission (“FCC”) or any other governmental, industry, or private organization or entity.

**Emergency Call** means a 9-1-1 call placed by a User.

**Emergency Call Relay Center (“ECRC”)** means Intrado’s inbound Emergency Call center, staffed 24 hours per day, seven days per week, and 365 days per year for Emergency Call handling customer support. For purposes of this Service Guide and Services provided hereunder, ECRC may include a third party contracted by Intrado to perform call center services.

**Endpoint** means a hardware device or software instance that can make and receive voice calls.

**Endpoint Data** means information on the specific location of an Endpoint, including GPS coordinates, municipal address, building name, floor number, and/or suite number.

**Public Safety Answering Point (“PSAP”)** means a facility equipped and staffed to receive Emergency Calls.

**Service Provider** means carriers or VoIP service providers.

**Use** means actual use of Services by a User for the purpose for which such Services is provided.

**Users** means Customer’s and its Affiliates’ personnel and, if applicable, Customer’s customers or Subscribers, and their respective personnel, employees, visitors and other users of Services.