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# **Alt911**

## **Alternate 9-1-1 Call Taking System**

### **An Outpost PMM Add-on**

Quick Start

January 19, 2023

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# Forward

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This guide provides some brief instructions on how to install, configure, set up, and use the Alt911 Call Taking System. This will step you through the basics to get you up and running.

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# Overview

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## Introduction

Communications, in particular residential phone service, could experience an extended outage and failure for several reasons, the most likely being:

- Earthquakes
- Severe weather events (tornadoes, hurricanes, etc.)
- Physical or cyber-attacks on power or communications facilities

Regardless of why or when any of these occur, there is still a need to take in requests for assistance from the community and deliver them to the local 9-1-1 Dispatch Center (Public Safety Access Point). This is where Alt911, Packet Radio, and Amateur Radio emergency responders come in.

Alt911 is an Outpost PMM add-on program that lets the user create a 9-1-1 request to be sent by AX.25 Packet Radio to the local public safety dispatch authority. Similar to what happens at a Public Safety Access Point (9-1-1 call center), the request starts with a user describing a problem that requires help from Fire, Sheriff or Police, EMS, or any Local Government services department (i.e.: Public Works).

The questions used here are identified by Santa Clara County Communications Center as the minimal set of information that is required to create a dispatch-able event. Unlike handling a telephone-based 9-1-1 call, the ability to go back and forth between the caller and the dispatch center will not occur. Therefore, ***getting the information right the first time is critical.***

The Alt911 program essentially performs computer assisted call taking in the field and delivery when telephone services are unavailable. It relies on...

- one or more field communications teams made up of RACES, CERT, or other emergency volunteers who interact with the public to record, format, and transmit a 9-1-1 request by packet, and
- a communications team at the 9-1-1 Dispatch Center / PSAP to receive, print, and deliver the request for dispatch.

See the section on ***Deployment Scenarios*** for details.

# Installation

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The following are the files delivered as part of the Alt911cts Installation process.

## Installing Alt911

Installing the software from the Web begins by downloading the Alt911 Install Program to your PC.

1. Go to the website (TBD) and look for the Alt911 Installation program.
2. Click to download the installer.

The Alt911 installation program includes all the files and processes needed to install and use Alt911 on your PC. After downloading the install program, run the installer as follows:

1. Click on the program to start the installation process.
2. **Information.** This is general information that you should check out depending on the type of install you want to perform. When done, press **Next >**.
3. **Select a Destination Location.** This is the location where all Alt911cts programs and data files will be installed. The default directory is: C:\MyAddons\Alt911  
**NOTE:** This directory is a good place to install all of your Outpost Addons. Unless you have some other special requirements or needs, accept the default location, and press **Next >** to continue.
4. Select **Additional Tasks.** If this is a stand-alone installation, it is recommended to check the box " Create a Desktop Shortcut".
5. **Configure Outpost.** Once all programs and files are installed, the installer will run **Aolloader.exe** and ask "**Integrate this Add-on with Outpost on this PC?**" Select **YES**.
6. Press **Next >** to continue.
7. On completion, the Installer will exit.
8. When done, double-click on the Alt911 icon to run the program.

# Basic Configuration

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To verify the Installation and finish the Alt911 setup, proceed as follows:

## Setting up Outpost

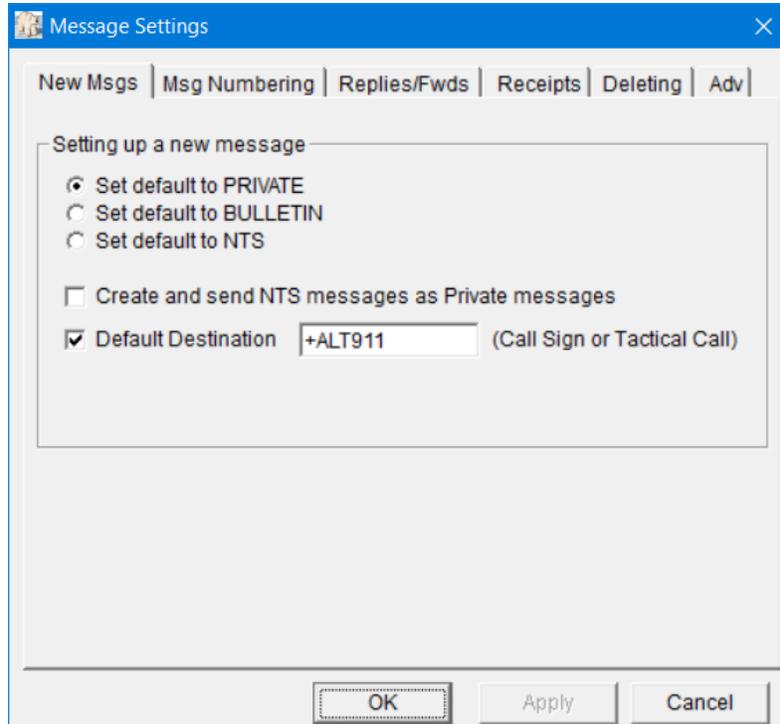
1. From Outpost, select **Tools > Message Settings**, Adv Tab.
  - a. Verify that the box “ Automatic start Opdirect External Message Service” is checked.
  - b. If it was not previously checked, CHECK this box, press OK, and restart Outpost.
  
2. From Outpost, set up a 911 distribution address (if not already set up).
  - a. Select **Setup > Address Book**. Press **New** (on the right).
  - b. Under Details...
    - i. Enter the Name: **ALT911**
    - ii. Enter the Org: **Cupertino OEM**
  - c. Under Packet / Email Address(es), enter: **cup911@w1xsc, cupeoc@w1xsc**  
**NOTE:** Cupertino’s EOC address is included so that the EOC receives a copy of transmitted 9-1-1 requests. This is optional; use your own cities’ tactical call for your situation.
  - d. Fillin in the Notes field is optional, but recommended.
  - e. Verify the form looks something like this. Press OK when done.

The screenshot shows the 'Address Book' dialog box. The 'Find a Name' dropdown is set to 'ALT911'. The 'Details' section shows 'Name: ALT911' and 'Org: Cupertino OEM'. The 'Packet / Email Address(es)' list box contains 'CUP911@w1xsc; cupeoc@w1xsc'. The 'Notes' text area contains 'Distribution list for sending Alt911 messages to Cupertino EOC for handoff to Santa Clara County Communications.' The dialog box has a menu bar with 'File', 'Edit', and 'Action'. On the right side, there are buttons for 'New', 'Copy', 'Forward', and 'Delete'. At the bottom, there are buttons for 'OK', 'Apply', and 'Cancel'.

3. From Outpost, set the default destination address for all packet messages (can be changed on the fly).

a. Select **Tools > Message Settings**.

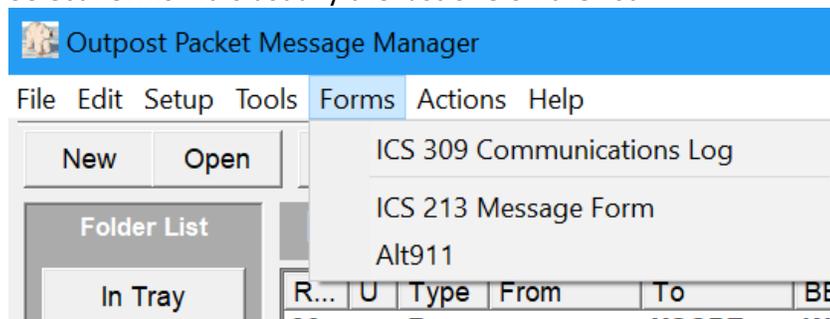
i. Check the  Default Destination box, and enter **+ALT911** (must include the plus sign; '+' indicates this entry is a distribution list).



ii. Press OK

4. From Outpost, verify that the Alt911 entry is in the Forms listing.

b. Select **Forms**. It is usually the last one on the list.

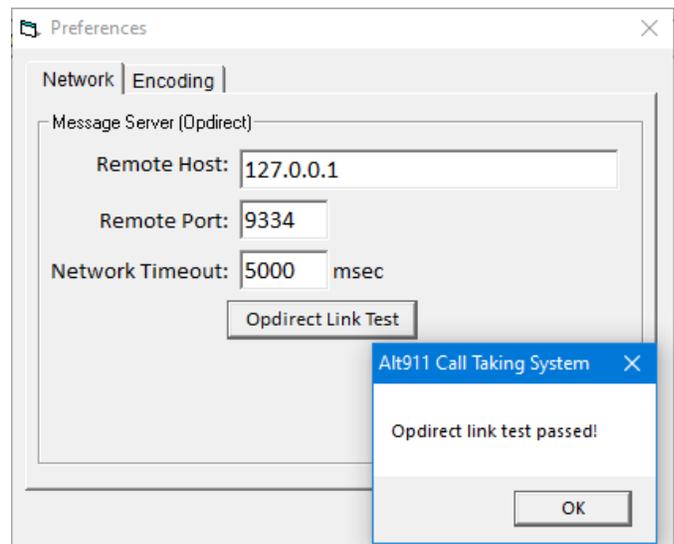


5. From Outpost, select **Forms**, then select **Alt911**.

c. Verify the Alt911cts program runs.

## Setting up Alt911cts.exe

- Every time the Alt911cts program is run, the **Alt911 Station ID** form opens. Check or fill in the fields with the information for the person taking the reports:
  - Name: your first and last name
  - User ID/Call Sign: for non-Hams, enter in the first 6 letters of your last name, or whatever User ID is defined by your jurisdiction.
  - Location: The place (not address) where you are assigned.
  - City: The City of this location.
  - Location ID: a 3 Character ID (EOC, CTC, DZA, etc.). If you do not know it, ask your Shift Supervisor.
  - Next Event No: This will be appended to a string to create the unique message ID.
  - Press OK when done.
- If this is the first time Alt911 is ever installed, check the network configuration:
  - From Alt911, select **Setup > Preferences**, then the Network tab.
  - If this instance of Alt911 is running on the **same PC as Outpost**, set or confirm that the Remote Host IP Address is **127.0.0.1**, the Port is set as **9334**, and then press **Opdirect Link Test**. Confirm the test is successful. Press OK, then **File > Exit** when done.
  - If this instance of Alt911 is running on a **different PC from Outpost**, enter the IP address of the PC running Outpost. Ask your packet operator for this information. Then, press Opdirect Link Test and confirm the test is successful. Press OK, then **File > Exit** when done.
  - If a problem occurs, refer to the **Troubleshooting** section.



Alt911cts set up is complete.

# Creating 9-1-1 Requests

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## Taking a 9-1-1 call

In general, 9-1-1 call taking is essentially asking the right questions and collect enough information for the 9-1-1 Dispatch Center to create a dispatch-able call. This section will not teach you how to manage the questions, but gives you the sense of what you need to do. Check with your jurisdiction call center for details and pointers.

Essentially, the ALT911 steps are:

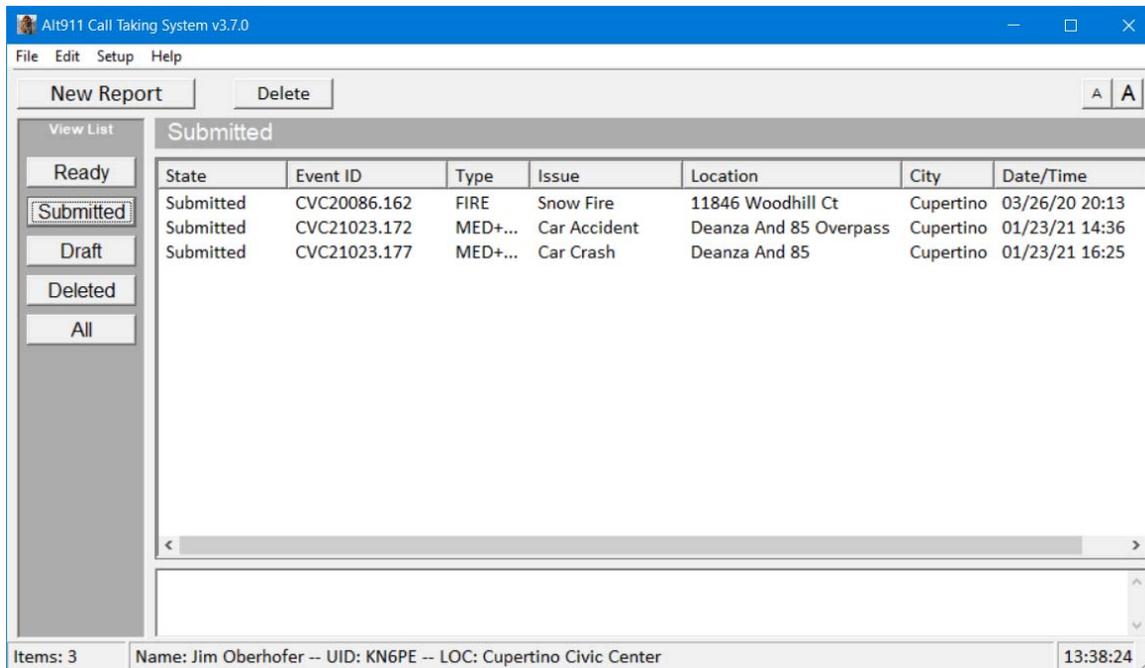
1. Someone walks up and says they need help.
2. Call Taker presses **New Request**.
3. Ask: What are you reporting?
  - a. Enter only the key words in the top field. Details are entered later.
  - b. Based on their answer, determine which Public Safety responder organization is needed and press the respective button.
4. Ask: The location of the problem. Make sure you enter the City.
5. Ask: Get the contact details of the person giving you the report: Name, address, phone number.
6. Ask: How long ago did you see this problem?
7. Ask: Any other details: “what did you see?” “what is happening now?” etc.
8. Ask: Specific Public Safety responder questions.
9. Press Submit.

# Main Form

This section describes how to use the Alt911 program.

The Main form contains the following:

1. Displays the listing of 9-1-1 requests and their various states. Clicking on the column headers will sort that respective column.
2. **New Report** button: opens the Call Taking data entry form.
3. **View List** buttons. Shows specific messages based on their state.
4. Various Menu options.



The four message states are:

1. Draft – message was started and SAVED. It was not submitted.
2. Ready – message is complete, but was not Submitted
3. Submitted – message was completed and submitted to Outpost for transmission
4. Deleted – the message was selected for deletion
5. All – lists all of the above together.

# Data Collection Form

On pressing new, the following form opens. All highlighted fields are REQUIRED.

Each request includes information on a specific problem requiring a specific public safety responder (Fire, Law, EMS, Local Govt). Highlighted are required.

The form is divided into 3 areas:

1. **Incident Summary and Reporting Person (RP).**

What are you reporting	In a few words, briefly enter a problem (Details come later) <i>Example:</i> House Fire Car Accident Difficulty breathing Tree down
Public Safety Responder	Click on one of the four buttons to select the appropriate public safety responder(s). This will enable the appropriate tab for further data collection.

Location of the problem	Three fields that describe where the event is taking place. These fields are: 1. Location, Address: <b>Required</b> 2. City: <b>Required</b> 3. Other Location Details: Optional Field. Example” cross Street building name “in the back”
Location L/U Button	Last Used. This button will load the last address entered. It is useful if the person with the problem is describing the same location.
Reporting Person (RP)	Three fields that include information about this RP. These fields are 1. Name: <b>Required.</b> 2. Address: Optional. Enter the address and street in this field. 3. Phone: Optional. However, this is required for LAW calls if the RP wants to be contacted.
RP L/U Button	Last Used. This button will load the last RP entered.

## 2. General Details

Last seen:* <input type="text"/> Details:* <input type="text"/>	
Last Seen:	<b>Required.</b> When was the incident last observed? Since the RP ran or drove to get to you, this gives dispatch a sense of the duration of the event occurring. This field can be set either in absolute time (hh:mm) or relative time (-min). When relative time is entered, Alt911 will calculate the time for you. Example:      13:04 4:35 PM -15           (15 minutes ago) -60           (1 hour ago)
Details:	<b>Required.</b> enter all other supporting details. Include things such as extent of the fire, observed smoke, flames, from where; details on a criminal activity, state of a person in medical distress, details on downed trees or power poles, etc.
<b>NOTE!!!</b> If this is an exercise, enter <b>**** THIS IS EXERCISE TRAFFIC ****</b> in the Details field.	

### 3. Specific Details.

Each responder type has its own set of additional questions that need to be answered.

#### i. MEDICAL

>> MEDICAL | FIRE | LAW | LOCAL GOV |

Medical

Age:\*

Gender:\*

Conscious?  No  Yes

Breathing?  No  Yes

Age:	<b>Required.</b> Age or approximate age of the person with the medical problem. Example: 35 late 60s
Gender:	<b>Required.</b>
Conscious?	<b>Required.</b> Is this person conscious? Select No or Yes
Breathing?	<b>Required.</b> Is this person breathing? Select No or Yes

#### ii. FIRE

MEDICAL >> FIRE | LAW | LOCAL GOV |

Fire

If a Fire: people inside?\*

People in side?	<b>Required.</b> Example: Yes no details
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#### iii. LAW

MEDICAL | FIRE >> LAW | LOCAL GOV |

Law

Description of person (age, height, weight):

Weapon involved?

Direction of Travel:

Vehicle Description:

License Plate:  State

If you are reporting a crime being committed by one or more individuals, then All of these fields are REQUIRED. If the person reporting doesn't know, state that.

Description of person.	Include any known observations on the perpetrators. Include: any distinguishing marks or clothing.
Weapon Involved?	<b><i>This is important.</i></b> Your police or sheriff need to know to what they are responding. <i>Example:</i> No Knife, about 5" Gun, no description Unknown
Direction of Travel:	Any details on which way the perpetrator may be headed. N/A if not necessary for this report.
Vehicle Description:	License Plate, and State are in the event a vehicle is involved. List all details of known.

**NOTE:** By taking this report, you may become part of the **Chain of Evidence** in the event any future legal and court action is taken. Check with your local dispatch center or jurisdiction for the rules and guidance in this area.

iv. **LOCAL GOV**

1. No additional information is needed. Put all details in the Details section.

**NOTE:** One or more responder options can be selected at the same time. For instance: a two-car accident with injuries (MED) and gas spill (FIRE). Select **MED, FIRE.**

Form Controls are:

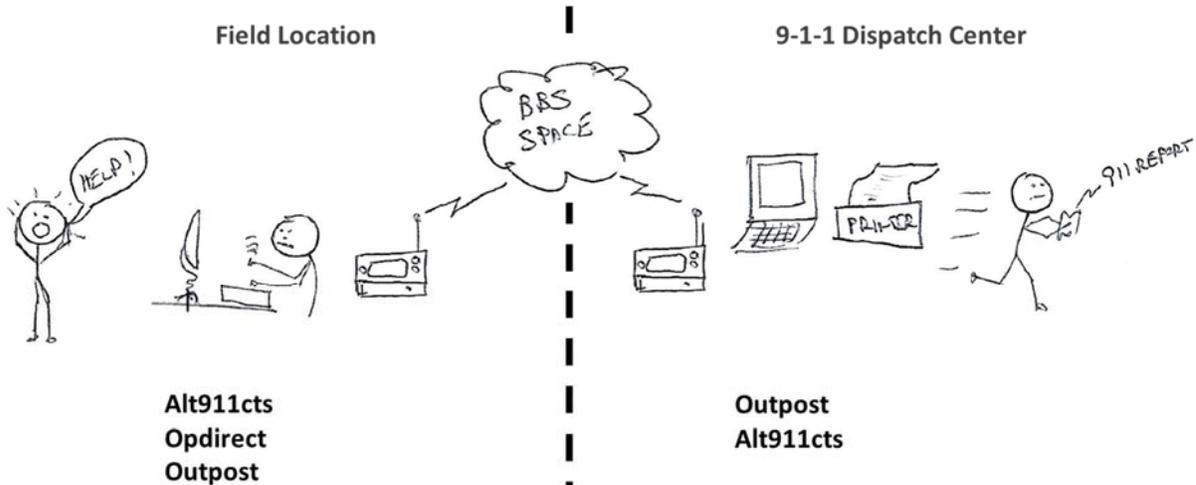
1. **Submit.**
  - i. Verifies that all required fields are filled in; highlights any required field that is missing content in yellow.
  - ii. Alt911 performs a network connect with Opdirect and passes the message to that program.
  - iii. Opdirect then writes the message to Outpost.
  - iv. Outpost automatically opens this message to be completed by the packet operator and then transmitted (Send/Receive).
2. **Save:** May be partially filled in and you need to take a walk-up for a higher priority request.
3. **Delete:** delete this message. Essentially, we started it and now will abandon it.
4. **Close.** Close this form, return to the main display.

# Deployment Scenarios

There are two field deployment scenarios that you may want to consider:

## Single PC Setup

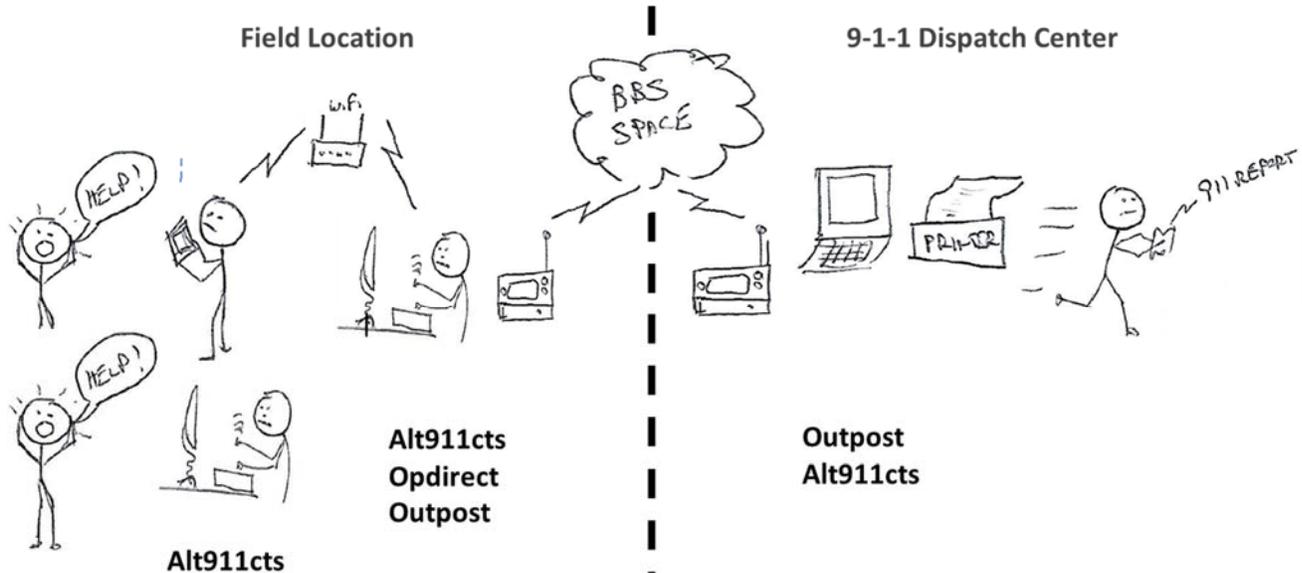
One instance of Alt911cts is running on the same PC with Outpost. In this case, the 9-1-1 request taker is also the field packet operator.



1. Resident comes up with a request for help.
2. On ALT911, Call Taker press **New Request**, asks all the questions, then presses **Submit**.
3. Alt911cts makes a network call to Opdirect.exe (IP Address of this PC is 127.0.0.1) and passes the message.
4. Opdirect.exe receives the message, identifies it as an **!ALT911!** message, and writes it to the Outpost message DB.
5. Outpost detects a new message and opens the message.
6. The packet operator enters the destination, confirms all other message header fields, and presses **SEND**.
7. The message is transmitted to the BBS.
8. Because Outpost is automatically polling the BBS for messages addressed to XSC911, it retrieves the message from the BBS.
9. Outpost detects it is an **!ALT911!** message and passes it to Alt911rpt.exe where it is printed.
10. Operator then delivers the message for dispatch.

# Multiple PC Setup

More than instance of Alt911cts are deployed on different PCs or Windows Tablets. They are all connected to a local router (either wired or wireless) along with the Outpost PC. The 9-1-1 request takers are dedicated to only taking requests. The packet operator only manages the packet station.



1. Resident comes up to one of the Call Takers with a request for help.
2. That Call Taker press **New Request.**, asks all the questions, presses **Submit.**
3. Alt911cts creates the message and passes it.
4. Each Alt911cts program was configured to use the IP Address of the Outpost PC (for instance: 192.168.0.104). It makes a network call to Opdirect.exe and passes the message.
5. Opdirect.exe receives the message, identifies it as an **!ALT911!** message, and writes it to the Outpost message DB.
6. Outpost detects a new message and displays the message.
7. The packet operator determines the destination, confirms all other fields, and presses **SEND.**
8. The message is transmitted to the BBS.
9. Because Outpost is automatically polling the BBS, it retrieves the message from the BBS.
10. Outpost detects it is an **!ALT911!** message and passes it to Alt911rpt.exe where it is printed.
11. Operator then delivers the message for dispatch.

# Troubleshooting

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## Alt911cts.exe Error Messages

Cannot connect to Opdirect.	<ol style="list-style-type: none"> <li>1. Verify that:             <ol style="list-style-type: none"> <li>a. Outpost and Opdirect EMS are running,</li> <li>b. Alt911cts network setting is pointing to the Outpost PC.</li> </ol> </li> </ol>
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## Alt911rpt.exe Error Messages

Link Test Fails	<ol style="list-style-type: none"> <li>1. Verify that Opdirect.exe is running on the Outpost PC.</li> <li>2. Verify that the IP Address configured in Alt911cts.exe is set to the IP address of the PC where Outpost and Opdirect.exe are running.</li> <li>3. Verify that networking is functional.</li> </ol>
Msg send to Opdirect failed	<ol style="list-style-type: none"> <li>4. Check the following             <ol style="list-style-type: none"> <li>a. Confirm the Host Name and Port Number match Opdirect</li> <li>b. Confirm that Opdirect is running</li> </ol> </li> </ol>
No Printer Installed	<ol style="list-style-type: none"> <li>1. Check that there is a configured printer available.</li> </ol>
Could not build Forms Definition Array; Forms file not found	<ol style="list-style-type: none"> <li>2. Installation error... contact the Add-on developer with the details.</li> </ol>
Could not build Data Definition Array; Data file not found	<ol style="list-style-type: none"> <li>3. Contact the Add-on developer with the details.</li> </ol>

## Programs

Alt911cts.exe	<p>Main 9-1-1 request data collection program; presents the user with a message-based data environment to manage new, saved, and sent 9-1-1 requests.</p> <p>This program can reside either on the same PC as Outpost or on a different PC on the same LAN as Outpost. See the section on <b>Deployment Scenarios</b> for details.</p>
Alt911rpt.exe	<p>9-1-1 Request printing program; is called by Outpost to print an incoming request. Different command options allow the user to configure the program to execute the printing task.</p> <p>This program resides on the same PC as Outpost.</p>
Aoloader.exe	<p>Installation helper program; is called as part of the Alt911 installation and prompts the user whether to complete the installation as either a stand-alone installation (installed on a PC that does not have Outpost) or to be integrated with Outpost (installed on the same PC as Outpost).</p> <p>When run, the program reads the Alt911.local file, extracts the Addon Program ID, and checks if this ID is found in Outpost's Launch.local file.</p>

## Config Files

Alt911.ini	Alt911 Configuration File. Contains the declarations for how Outpost will call the Alt911 add-on. This file is loaded each time Outpost is run. In you change how you want Alt911 to execute, change the declarations here and then restart Outpost.
Alt911.local	Alt911 Launch.Local input file. At installation time, this file is read by Aolader.exe and is loaded into the Outpost Launch.local file. The content of this file is usually an INCLUDE statement that points to where the Alt911.launch file resides.
Alt911.launch	Alt911 Launch file. This file is loaded when Outpost is run for the purpose of populating the Forms menu. This file is usually referenced by the INCLUDE statement loaded into Outpost's Launch.local file.
Alt911-Form-Def.csv	Alt911 Report form definition file. Contains the geometries and text that define the Alt911 Output Report. This file is one of the command-line parameters when calling Alt911rpt.exe.