**FAQ (Questions & Answers)**

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## **What is/are the problem/s Tracy and want to solve?**

* *Communication difficulties during natural disasters*. Tracy allows emergency an alternate communication during telecommunication pane, allowing civilians to connect to Tracy’s wireless signal in order to communicate with first responders.
* *Reliable System*: each device works separately from the others Tracys. So there is no need to create a mesh network structure for the communications occur. Each device will operate independently relaying data to the network.
* *Large events can require data to be send in a large distance* : Tracy is combined with 2 external antennas which allows data to be send from receiver up to 50km
* Integrate with Rescue departments.
* Provide Software and tools for rescuing inventory management, damage assessment and broadcast status updates.

## **What is/are the problem/s Tracy Building want to solve?**

All the Problems mentioned above for Tracy added with:

* Identify and alert owner when their property and family might be on risk. It’s a Fire sensor integrated to user’s mobile systems. That alerts Tracy owners if Tracy is turned on.
* Disaster Relief redness. Tracy Technology will be already active when needed. Not having to prepare to place it after a disaster.
* Rescues for individuals and community through an inexpensive device.
* instantly provide information to rescuing teams, such as the event’s magnitude and accurate location of the possible victims.

## **Who is Tracy for Building for?**

* Homeowners that care about their Family safety and home.
* Rescue departments want quickly responder after a disaster.

## **Who is Tracy for?**

Emergency rescuers where there is no Tracy for Building installed and there is no regular communications system in place.

## **How is this product unique for consumers?**

This app is unique because it combines multiple devices for safety, uses the latest technology in the market, its inexpensive and was created for everything (People and things); everywhere.

Some regular fire detector could not work properly in case of others disaster without fire or even if battery life is over. Because Tracy trigger when power is off or there is smoke, it can reach others disasters such as earthquake, flooding or even robbery with the cut of power. It’s also connected with homeowner mobile, so he can verify current status, receive alerts or even shut down the alarm in case of false alarm. Besides that, it also integrates with rescue departments in order to quickly identify victims and its location and support them during natural disasters. So its much more than a fire detector it’s a family´s live prevention.

## **What does the Tracy for building fire detector system measure?**

Tracy for building can detects and alert dangerous levels of carbon monoxide, hydrogen, carbon dioxide, methane, propane, all kinds of alcohol, smoke and LPG/CNG.

## **Can tracy report power cut?**

Yes

## **What kind of data does Tracy collect?**

Tracy collects the data we believe is necessary to provide a great experience with your Tracy products and services – to help you stay safe, to help during emergency disasters and to keep you in touch with your home wettened unusual things is detected. Please read our Privacy Terms.

## **How do I access my data?**

If you have a Tracy account, you can download an archive of your Tracy Emergency data.

## **What data does My Tracy Data provide?**

Your data archive from My Tracy Data includes information you’ve provided about yourself, like your email address; details you’ve provided about and your home or information about people that lives with you; rescue information such allergies, blood type for emergency and sensor data from Tracy equipment’s such as smoke alarms, emergency detections or others you’ve connected to your Tracy account.

## **How does Tracy keep my data secure?**

Tracy uses IBM db2 database for storage, so the data is as secured as the IBM db2. For securing data while transmission it will be use SSL. Transmission of your data to organization rescuers will only be shared during emergencies for organization that has Tracy Software’s and are approved by Coakum technology.

## **How does Tracy for Building is installed?**

Tracy for building is installed on each floor of the building in replace of a regular fire detector. Tracy Uses battery for emergency but also needs to be connected with a power supplier. Tracy does not relying on cables to get activated. An external antenna of 17cm length should be placed on top of the building so information could be transmitted for above 50km.

## **How does Tracy for Building works?**

When building energy power if off or when smoke is identified by Tracy, Tracy turns on, running local alarm. An alert is immediately sent for the homeowner cellphones registered on Tracy system.

In emergency, Tracy will capture cellphone locations signals of all devices and the position on each floor on the building and open a communication system in a 500m radio. So, rescues can identify if there is telephone signal at home, who lives in the building, if residents have any disability that prevent from be rescued; emergency medical records (if registered before).

Tracy can also stablish communications with government rescues authorities, such as sanitary, fire and medical departments up tp 50km even in communication pane. Solving several problems such as: False alarm communication; identification number and location of people on the building during emergency events; transmitting help request by surrounding people; etc.

In case of big areas disasters, together with Tracy software 1st responders can access information and open communication on the building up to 50km.

## **If there is no Tracy Building Installed and there is an emergency how could Tracy be used?**

Tracy should be placed on the emergency Zone area. When one or more Tracy hardware tokens are placed in the emergency Zone area, each device will operate independently relaying data to the network, which will allow civilians to connect to Tracy’s wireless signal in order to communicate with first responders when other communication systems are not accessible.

## **How emergency communication is stablished with the victim after Tracy is trigged?**

When Tracy is on it will automatically provides Wi-Fi range of 500m. If the cellphone is already configured it will automatically connect to Tracy. And on its APP or web interface (that open automatically) the victims will be able to send immediate requests to the responders.

## **Do Victims need to have the APP installed to exchange information with the rescuers?**

If the cellphone does not have the APP and was never connected with Tracy before, he will still be able to see an intuitive emergency captive web interface portal for civilians upon connecting to the hotspot network. Besides that, after he connects to Tracy network his signal would be automatically send to the organization rescuers alarming that I signal has connected over the victim location.

## **What is the difference between Tracy and the others amateur radio frequency?**

Most of the radio amateur need and designed infrastructure to create a communication system, which can make it difficult to created or to maintain in a rush environmental. Tracy do not rely on a Mesh to send information. Each device works independently relaying data to the network. Each Tracy can Transfer and receive data up to 50km.

## **How long Tracy battery is supposed to last, when no other source of power is available?**

Tracy for Building will need to be supplied with a power cable to detect other kind of emergencies. But when trigged and there is no other source of power available depends on the load and network traffic using It is supposed to last between 2 week and 4 weeks. Time enough to get rescue help even in big events.

## **When will tracy for building enter extreme power down mode?**

Tracy for building will enter extreme power down mode approximately 7 days after the disaster or after the high power non rechargeable battery drains down.

# **Tracy Technology FAQ**

## **What technology is used to communicate Tracy with the APP?**

Ad hoc technology ,  the user network connection is temporary established for a single session and purpose, and does not require a [router](https://techterms.com/definition/router) or a wireless [base station](https://techterms.com/definition/basestation).

## **What technology does Tracy uses to stablish a communication with the central software system?**

Tracy is uses FM radio data system. It transfers data using RDS system and will use TDMA system. As the number of Tracy increases the TDMA is planned to be replace with the SDR so it can avoid “limited spectrum” and could have a good performance in multiples devices.

Tracy uses with cellular reuse frequency to ensure that the mutual interference between users remains below a harmful level, so adjacent tracys (cells) use different frequencies.

Its combined with 2 external antennas which allows data to be send from receiver up to 50km with low interference problems. Tracy uses Ad hoc technology to connect with the civilians Mobiles.

## **How many batteries does Tracy for building require?**

Tracy for Building requires 2 batteries. First is a high power non rechargeable battery that can power the device continuously for 7 days, second is a low power rechargeable battery that will power the device for 1 month.

## **Tracy How many batteries does Tracy require?**

Tracy requires one high power non rechargeable battery

## **Are the batteries replaceable?**

Yes the batteries are replaceable.

## **Is Tracy reusable?**

Yes, every Tracy device is reusable.

## **In which Frequency currently Tracy works?**

Current version of Tracy operates at only 433mhz

## **What is the transmission speed of tracy?**

10kbps

## **What is Tracy solution for overcome the interference noise of radio frequency?**

Tracy uses cell reuse pattern reuse which has low interference between others adjacent Tracys.

## **how many characters can a civilian trapped in disaster send at one time?**

10k characters at one time

## **What are the operating voltages for Tracy and Tracy for Building?**

Tracy for building has three operating voltages 110V (from the wall), 9V, 5V and 3.2V(extreme power down mode).Tracy operates at 9V.

## **What are the services available in extreme power down mode?**

In extreme power down mode all the sensors and RF transmitter and receiver are shut down, only Wi-Fi is on, Wi-Fi can help establish connection between civilians and rescuers.

## **What type of modulation does tracy use?**

Currently tracy uses ASK modulation.

## **In a building, how rescuers will know in with floor the victim is?**

First, communication will be open when a disaster happens, so the victims can speak with the rescuer and send their information.

In case of a communication issue or when the victim is unable to communicate, the system is designed to have in each building each floor an unique device that will different frequencies uses so Tracy can detect in which floor the victim.

## **What libraries does tracy use?**

Tracy uses wifi.h, asyntcp and serial libraries all of which are open source.

## **Is the firmware on Tracy building, Tracy and Tracy for Rescuers are the same?**

Totally different. All the three devices have three different onboard software.

## **In which programming language is tracy programmed?**

Tracy devices are programmed in C programming language.

Tracys desktop software is developed in C++. Tracy makes use of IBM DB2 server for storing data. Tracy's android application is developed in JAVA.

## **What are the IBM Cloud Services or IBM Systems used in the solution?**

Currently Tracy uses IBM DB2 server software in the rescue centres to which the Tracy software will connect. In future we will be using IBM AI to solve the hamming distance problem.

# **Tracy Rescuers Software FAQ**

## **What is Tracy rescuer Software for?**

Governments Organizations & Authorities; Fire, Sanitizations & Medical Center Organizations; Hospitals and others Institutions.

## **What is Tracy Rescuer able to do?**

* Facilitate communication with civilians during a disaster events;
* Improve rescuers support
* locate impacted areas / buildings
* rescuing inventory management,
* damage assessment and
* broadcast status updates using Tracy Software for rescuers.

## **What the Tracy Rescuer Product contains?**

Software (manage System and Tracy Rescuer device (To receive and transmit messages from Civilians).

## **What are the operating voltages for Tracy Rescuer at the Rescuer Center?**

Tracy at rescue center device operates at 110V (from the wall).

## **Can Tracy Rescuer at rescue center deployed on the go?**

Yes.

Request a representative for more information regarding Tracy Software.