



# SonicPass User Guide

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## 1. Introduction

The purpose of this application is to enable carrying out demonstrations based on data transmission through sound waves as a communication channel between devices. This App integrates the CopSonic technology for ultrasound communication (hereinafter called "US").

This demo is a proof of One Time Password concept showing the ability of CopSonic SDK, using ultrasonic, to transfer account data stored in a mobile App to a web App in order to authenticate the user.

The SonicPass mobile App hosts a correspondence table between web sites and user account information. It also include a CopSonic SDK module in charge of getting ultrasound to join session and share data.

The SonicPass web knows a user named Copsonic. Website contains a 'Log In' component that include CopSonic SDK module in charge of creating a secure session and playing ultrasounds to allow mobile discovery. Once authenticated, SonicPass web shows a 'Welcome CopSonic' message.

This demo offers two authentication options:

- Authentication by the SonicPass application.
- Authentication by phone call (no application required)

This demonstration has been developed for Android and iOS environments. It is NOT a final product or a service. This application must be considered as a valid support to enable testing.

In addition to this user guide, a general introduction to ultrasounds will help you understanding the fundamentals of this approach. This document is available on the following link:

➤ [Ultrasound General Introduction](#)

## 2. The use case

The illustrated use case is an authentication between a website (opened in the browser of any device: computer, smartphone, tablet...) and the smartphone of the user.

The user's smartphone recognizes the website and sends the appropriate credentials.

To perform this demo, you will need:

- 1) A device (computer, laptop, smartphone, tablet...) on which the demo website can be opened on any navigation browser.

Website: <https://SonicQRcode.copsonic.com/>

- 2) A smartphone with the mobile application "SonicPass". This App is available for Android and iOS. The CopSonic SDK allowed us to integrate the US technology within the Apps during their development. The installation process will be explained further in this document.

An internet connection (WiFi, 3G, 4G...) is required on both devices.



### 3. Installation of the mobile application

The compatible Operating System versions for the smartphone applications are:

Smartphone OS	Android	iOS
Version	4.0+	8.0+

#### 3.1 Step-by-step installation procedure for Android

- 1- Download the demo application using the following link:

CopSonic Store: <https://apps.copsonic.com/ApplicationDetails.aspx?ApplicationId=143>

- 2- Launch the downloaded .apk file to start the installation process.

Before installation from CopSonic Store, your smartphone may inform you that the source is unreliable as it is not downloaded from an official App Store. See more about this issue in the following link:

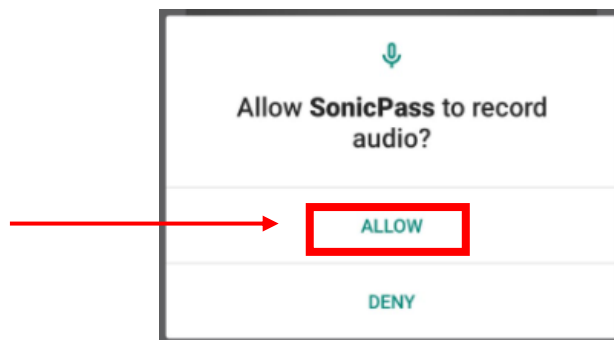
➤ [Allow the installation of external applications.](#)

Once installed, this icon will appear on your device:



- 3- When activating the different options of the application for the first time, the necessary permissions will be requested:

- Record Audio: Since the application needs to receive the audio signals through the microphone, this permission must be added.





The CopSonic technology is capable of generating ultrasonic audio signals with messages modulated within them, as well as detecting and reconstructing these messages after recording and analysing the audio samples that contain them. The messages are encoded using very high inaudible frequencies and the App just scans those frequencies. So, even though the recorded audio covers the whole spectrum of frequencies, CopSonic only analysis the inaudible bands once and the system not keep any kind of record whatsoever of any of the processed audio recordings.

### 3.2 Step-by-step installation procedure for iOS

- 1- Install the demo application using the following link:

CopSonic Store: <https://apps.copsonic.com/ApplicationDetails.aspx?ApplicationId=198>

- 2- Once the app is installed, when trying to run it, a warning might appear (if it is the first time that you are running CopSonic demos). This message will say that the certificate is not reliable since the App has not been downloaded from Apple's App Store.



The steps to solve this issue are described in the following link:

- [Allow the installation of external applications "Activate Trusted Certificates"](#).

The required permissions are the same as for the Android application.

[See the description in the previous section.](#)

## 4. Accessing the demo website

The demo website requires the following minimum browser compatibility:

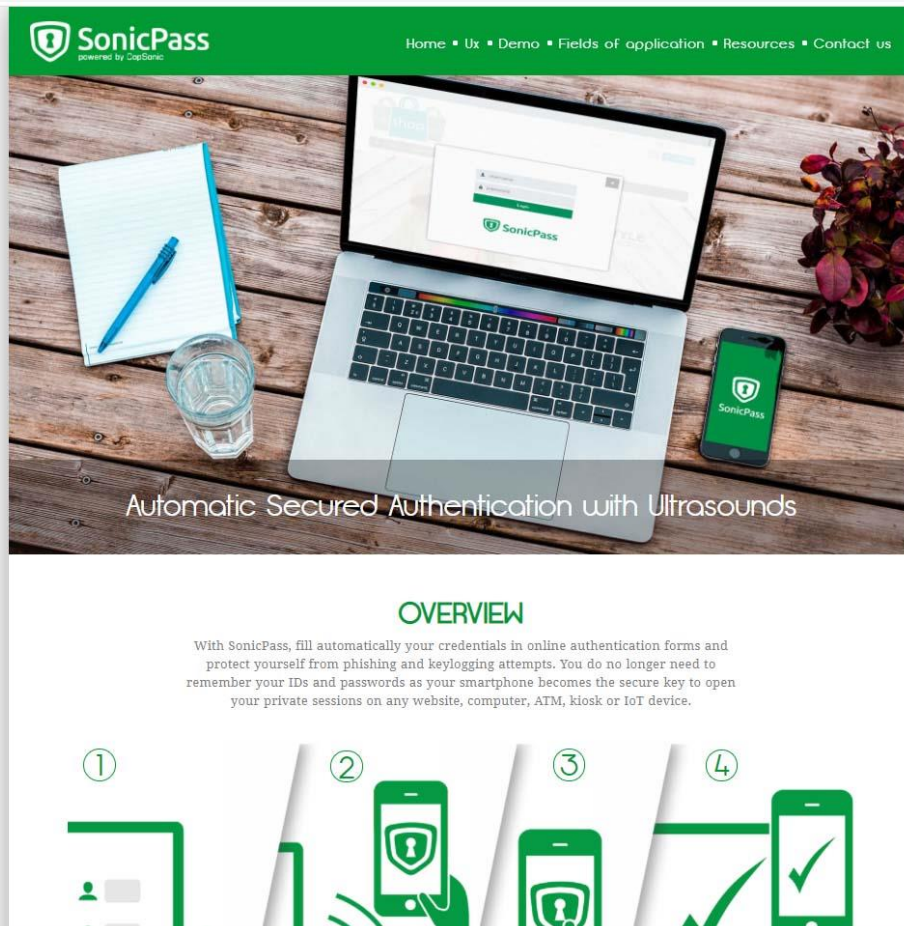
Browser	Chrome	Firefox	IE	Edge	Safari
Version	68.0	61.0	11.0	42.0	11.0



To know your browser version, please use this link:

➤ <https://lehollandaisvolant.net/tout/tools/browser/>

Within your web browser, open <https://sonicpassword.copsonic.com/>



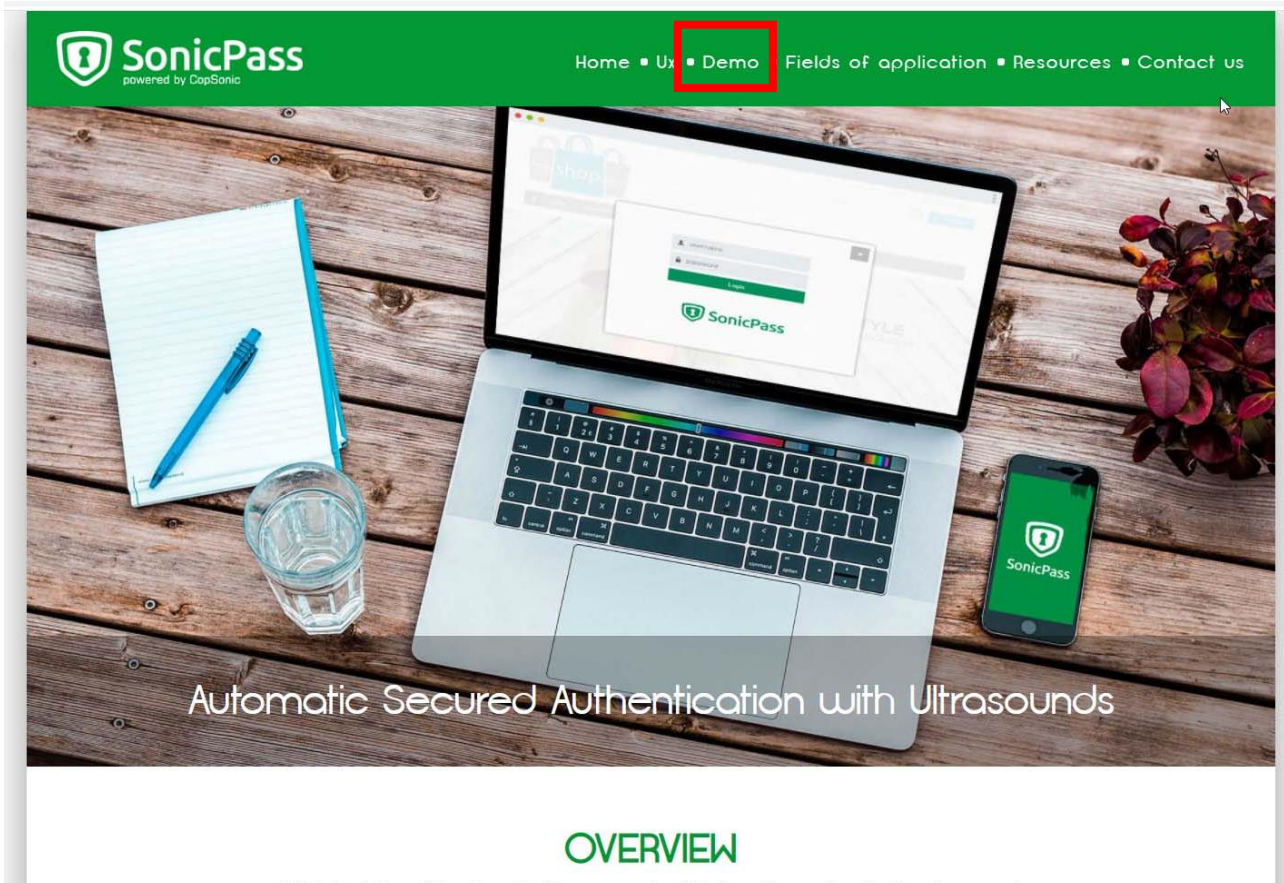




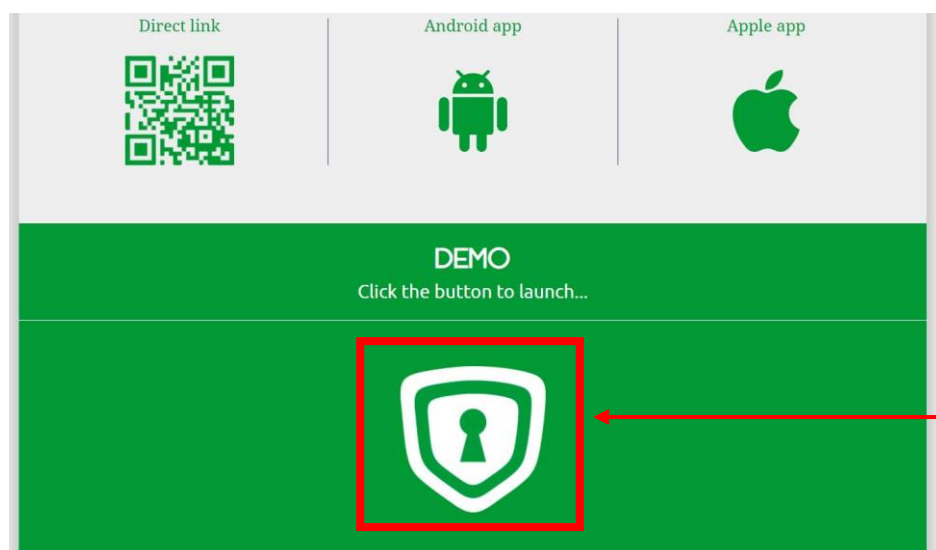
## 5. Running the demo

This chapter describes the steps to follow in order to carry out the demo after installing the mobile App and opening the demo website in your browser. Both authentication option (by app and by phone call) will be explained further on.

- 1- Go to the demo section of the website

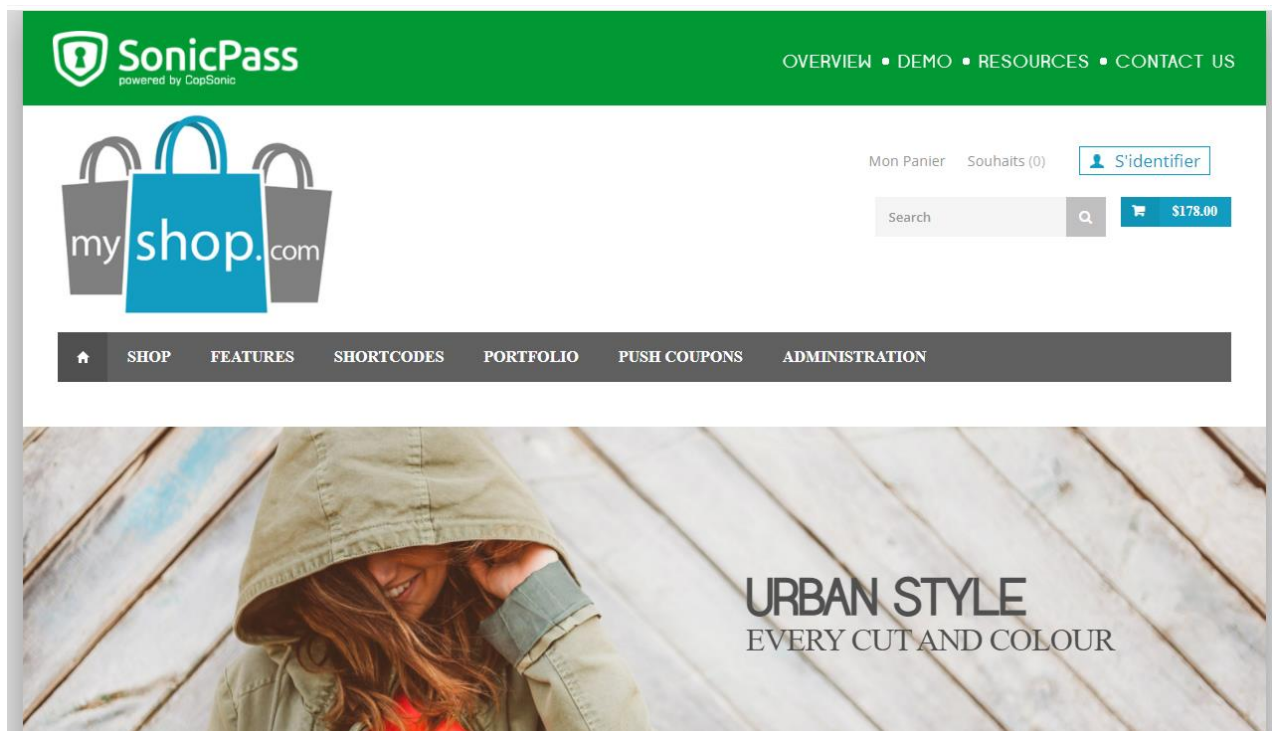


- 2- Click on the logo button

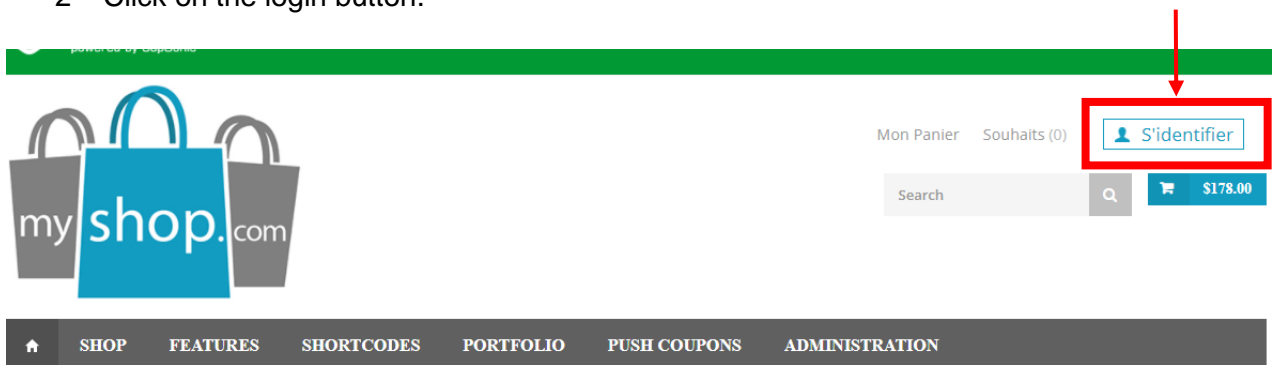




A new page will open in your browser.



2- Click on the login button.



Authentication form:

CHECK  
IF YOUR SPEAKERS  
ARE ON

No app ? Please click [here](#) to use phone call authentication.

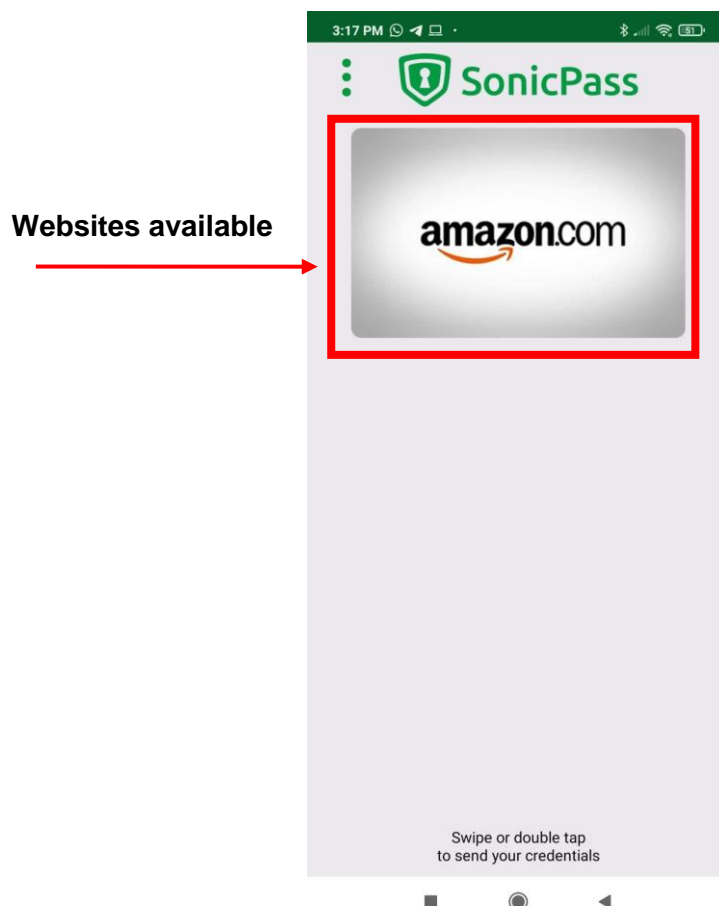




## 5.2 Authentication by application

The following steps are from the moment the authentication form appears on the web site ([see previous section](#))

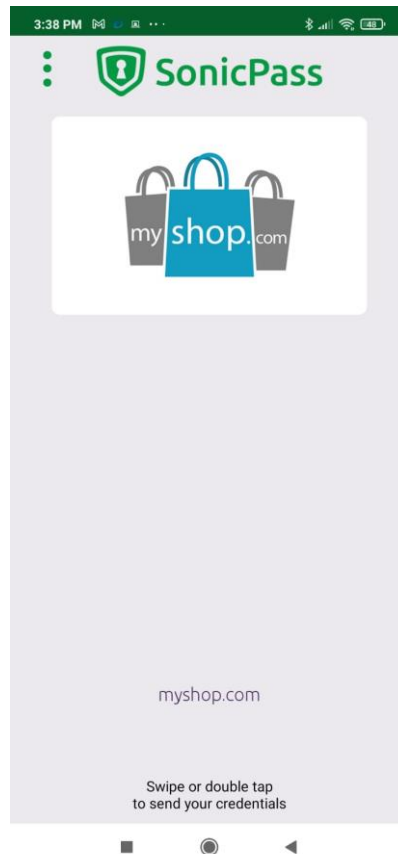
- 1- Once installed, just launch the SonicPass application and grant all the required permissions.



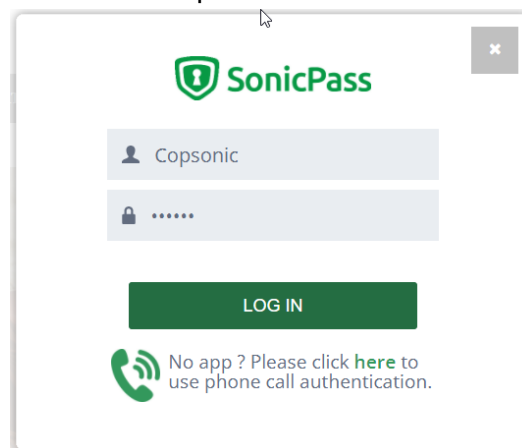
The home screen shows the websites available for authentication. You can scroll through the list of websites by swiping on it.

When the smartphone detects the ultrasounds emitted by the website, the home screen displays the identified website.

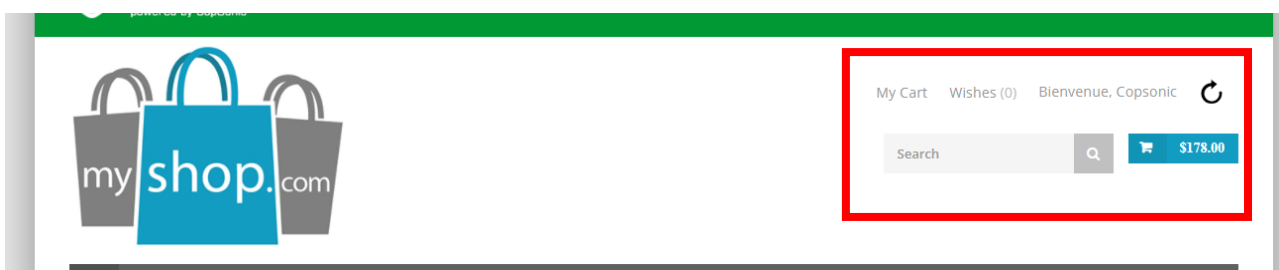
- 2- Swipe or double tap to send your credentials to the website.



Automatically on the website authentication form, the username and password fields will be filled in and the authentication process will end.



**User logged in**





## 5.2 Authentication by phone call

The following steps are from the moment the authentication form appears on the web site ([see previous section](#)). No application required to test this option.

- 1- On the authentication form, select the phone call option.

The image shows the SonicPass authentication form. At the top left, there is a 'CHECK' button with a speaker icon and the text 'IF YOUR SPEAKERS ARE ON'. The SonicPass logo is at the top center. Below the logo are two input fields: 'username' and 'password'. A green 'LOG IN' button is below the password field. At the bottom, there is a red-bordered box containing a phone icon and the text: 'No app ? Please click [here](#) to use phone call authentication.'

- 2- Enter the phone number and the pin code and click the “Log In” button. The phone number should have the international format. The pin code for demo purpose is 1234 or the last four numbers of the value introduced in the phone number field.

i.e:

Phone number for France: 00335034977152

Pin code:7152

- 3- Answer the incoming call.

The phone receives the ultrasound message emitted by the website.

If the received information is valid, automatically on the website authentication form, the username and password fields will be filled in and the authentication process will end.

The image shows the SonicPass authentication form after successful login. The 'username' and 'password' fields are now filled with 'Login OK' and 'Password OK' respectively. The green 'LOG IN' button is still present. Below the button, the text 'Authentication OK' is displayed with a green checkmark icon.



## User logged in



## 7. Support and F.A.Q

Do not hesitate to contact us for assistance on this demo environment or for further information:

- By mail: [support@copsonic.com](mailto:support@copsonic.com)
- By phone: +33 563 67 81 20

### Smartphone error message « SonicAuth not reachable » :

- a) Check the network connection for the online demo
- b) If you have a connection but you still get this message, it may be because of something on your PC blocking the connection, a firewall for instance.
- c) If you already checked the previous steps and you still get the error message, the CopSonic Server may be down. Please contact our technical support for more details.

### The Smartphone App does not catch the ultrasounds:

The US technology requires a loudspeaker on the emitting source. The source must be able to emit, so "mute" must be canceled and have an acceptable volume.

- a) Check the broadcasting source is not on mute.
- b) Check the volume of the speakers.
- c) Check if you have headphones connected.
- d) Make sure your smartphone is close enough to the speakers; we recommend starting with a 50 cm distance or less.
- e) Check that the smartphone App does not display a « SonicAuth not reachable » message.

- END of DOCUMENT -