

# **Complete Robocall Defense**

**Presented by John Krout for  
Computer Users of Erie  
January 20, 2022**



# **Presentation updates as of January 2022**

iOS 15

Android 11

MyCableMart.com status updated

Google Play Store QR code added for Voice Recorder  
app

Added Apple Lightning to headset adapter

# Agenda

- Scale of the robocall problem
- Effects on smart phone owners, meaning you
- Goals of Robocall defense
- Past methods, and their shortcomings
- Whitelist advantages and my experience statistics
- Prevent robocalls from ringing your smart phone
- Prevent robocalls from leaving voicemails
- How to create a custom voicemail greeting
- How to install a custom voicemail greeting

# **SCALE OF THE ROBOCALL PROBLEM**

# ROBOCALLS ARE A PERVASIVE PROBLEM

- The estimated robocall volume in March 2019 was **5.2 billion**, also expressed as 5,200,000,000 or  $5.2 * 10^9$ .
- This was reported by the Washington Post in April 2019.
- March included 2.6 million seconds, so **the robocall rate per second** was about **2,000**.

# ROBOCALLS ARE A PERVASIVE PROBLEM

The FBI produces an annual **Internet Crime Complaint (IC3) Report**. CNN.com reported on 10/27/2019 that, according to the IC3 Report for calendar year **2018**:

- In 2018, **26,379 people** reported falling for **phishing**, meaning attempts to convince you (falsely) that the caller has a legit need for your SSN, DOB, account ID and password, et cetera.
- Those people lost nearly **\$50 million** to phishing, about \$1,900 on average per person.

# ROBOCALLS ARE A PERVASIVE PROBLEM

I downloaded the **FBI 2020 report** from:

- [https://www.ic3.gov/Media/PDF/AnnualReport/2020\\_IC3Report.pdf](https://www.ic3.gov/Media/PDF/AnnualReport/2020_IC3Report.pdf)
- Phishing Incident count for 2020: **241,342**  
vs 26,379 in 2018
- Total Phishing dollar volume of losses  
for 2020: **\$54,241,075**, about **\$224** per person,  
vs < \$50 million in 2018
- The report for 2021 is not yet published as of  
January 11, 2022.

Scan  
the  
QR  
code



# **ROBOCALL IMPACTS**



# Robocall Impacts on a phone user (meaning YOU)

- Robocalls ring your phone with Caller ID from a number that is usually either Unknown or unfamiliar to you.
- The displayed number may be in your own area code and exchange, falsely suggesting that a neighbor is calling.
- The displayed number could be your OWN PHONE NUMBER.
- Robocall voicemails may frequently **clog your Voicemail inbox to its limit**, so people you want to hear from cannot leave a voicemail for you.

# Financial Risks of Robocalls

The primary goals of robocalls are to:

- Convince you falsely that the caller's need is urgent
- Convince you falsely that the caller needs your personal info, such as SSN and DOB
- Use the info you provide to **steal your money**: bank accounts, brokerage accounts, IRS refunds
- Use the info to **steal your identity**: establish credit and buy expensive goods using your identity, with no intention to repay, ruining your credit record

# **GOALS OF ROBOCALL DEFENSE**

# Goals of Robocall Defense

- Prevent robocalls from ringing your phone.
- Prevent robocalls from leaving voicemail for you.
- Convince Robocall systems not to call your number again.
- You will know the jargon and can convince your family and friends that you are an expert.

# **PAST METHODS TO DETER ROBOCALLS**

# What is Telezapper?

**Telezapper** is a 1990s commercial product for landlines, intended to prevent robocallers from disrupting your day or evening.

For every incoming call, it played the famous **3 tones, know as Special Information Tones**, indicating that your line is disconnected.

Telezapper is still available, ***and still works.***



# What is DoNotCall.gov?

This web site, created by the **US Federal Trade Commission (FTC)**, allows US consumers to identify themselves and their phone numbers.

If you choose to do that, then any **cold call**, from a business having no prior business relationship with the call recipient, subjects the cold caller to a fine of **\$11,000 *per call***.

The FTC relies on the call recipient (you) to obtain the caller's Caller ID or the return number stated by the caller on an answering machine, and provide that info to the FTC.

It worked for a few years.

# What is a Blacklist?

- A Blacklist is a list of Caller IDs known to be used by robocall systems.
- For a while, this strategy worked to eliminate unwanted live calls.
- Services such as Verizon Wireless Call Filter, YouMail and NomoRobo block calls originating from blacklisted numbers.
- However, **robocalls worked out a way to evade the blacklist.**



**Why Blacklist  
methods do not  
work anymore**

# Robocallers now evade DoNotCall.gov and other US law enforcement

Three evasion methods:

1. **Offshore locations**, outside of US legal jurisdiction
2. **Spoofing**, which sends an incorrect Caller ID to the call recipient
3. Entering the phone network through **Voice over IP** (the Internet)

# What is Spoofing?

Spoofing is a technique that robocallers use to remain anonymous and untraceable. So The FTC cannot find them.

The result is the phone number displayed by Caller ID is ***not the number from which the robocaller system calls.***

This capability is built into the telephone company switching system servers. It had a benign business purpose when introduced in the 1960s.

But it also has no security. Anyone with sufficient info, including you, can use that switching system server feature.

Some of the spoofed numbers are actual real phone number belonging to others.

# Web sites enable *anyone* to spoof their own Caller ID



# **Spoofing might be an amusing prank, but I do not recommend using the sites**

The spoofing Web sites require you to provide the real number you call from, and the number of the call recipient.

**The known phone numbers can be sold to robocallers.**

# How Robocall systems evade Blacklists

- Robocall systems now change their spoofed Caller ID constantly.
- Blacklists cannot keep up.
- Sometimes, a robocall to say 1,000 numbers will literally use 1,000 different spoofed Caller IDs, a different one for each call.

# SMART PHONE CONFIGURATION SUMMARY

A **Whitelist** strategy to prevent  
robocalls from ringing the phone

# Summary of the configuration

- Set your smart phone to **Do Not Disturb** mode.
- Your smart phone allows you to specify ***exceptions*** for Do Not Disturb, meaning callers whose calls will ring your phone.
- **Set this exception: Contacts**, meaning everyone in your smart phone Contacts list. Those calls **will ring** your phone.
- Your Contacts acts as your personal **Whitelist**.
- All other calls *do not ring your phone, but do light up your screen, and go to your voicemail*. You can listen and respond if the caller leaves a legitimate voicemail.



# Summary of the configuration

- Your smart phone Settings app has a **Do Not Disturb On/Off Switch**, so you can turn off Do Not Disturb easily when you need to do so. A typical reason to do so is when you expect a call from a business or individual who is not in your Contacts.
- Your smart phone allows you to **set a Schedule** for Do Not Disturb. I set start 10:00 PM and end 9:59 PM, effectively 24/7.
- The **advantage of a schedule** is:  
If you do turn off Do Not Disturb manually, using the switch, and forget to turn it on later, then your smart phone will turn on Do Not Disturb ***automatically at the next start time.***

# Summary of the configuration

- This is a **Pure Whitelist** strategy. That means your phone will ring *only* for calls from numbers in your Contacts.
- Think of the entire range of possible callers as falling into three groups: **Contacts, Unwanted robocalls, and other calls.**
- A **Pure Blacklist** strategy excludes known robocall numbers, but allows unknown robocalls and other calls. ***No blacklist is complete.*** I used the Blacklist strategy for about six months via the Verizon Call Filter app. It blocked maybe 50% of the robocalls.

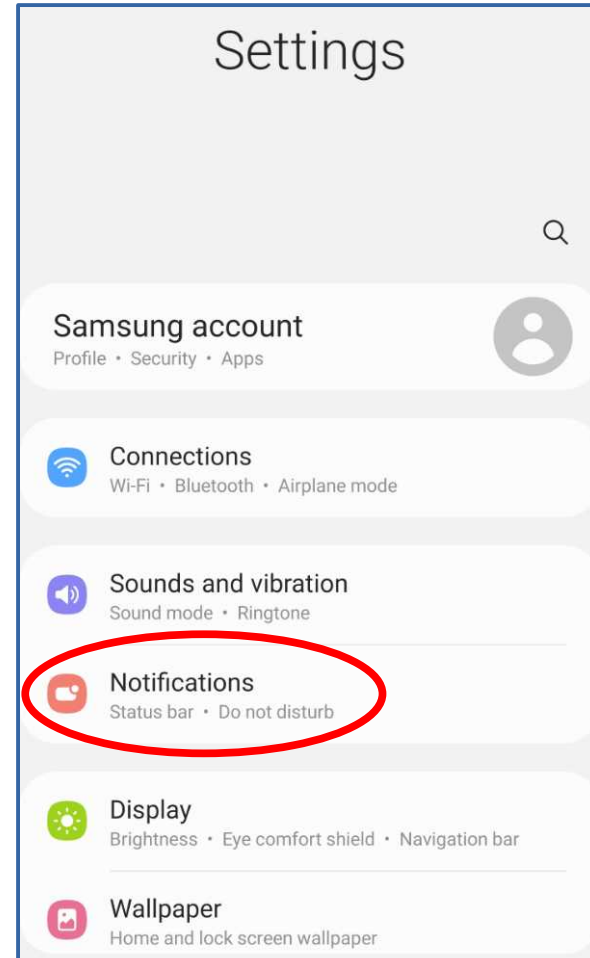
# Limits of the Whitelist approach

- Some people find that a robocall system uses **their own number** as the Caller ID.
- This is an extreme and **easily recognized example** of spoofing.
- Since I have my own number in Contacts, such a spoof would ring my phone.

# **Whitelist Configuration for Android phones**

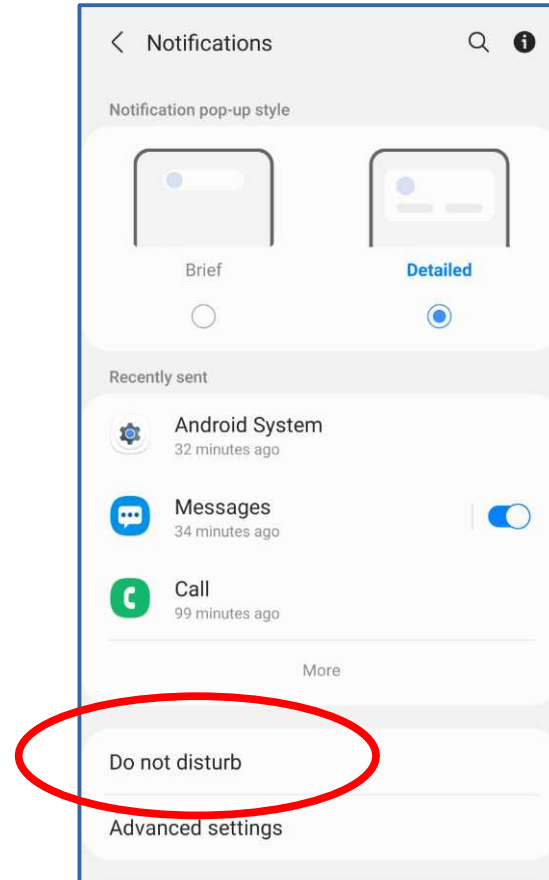
# The Android 11 technique

- Open the Settings app
- Tap **Notifications**.
- The **Notifications screen** opens.



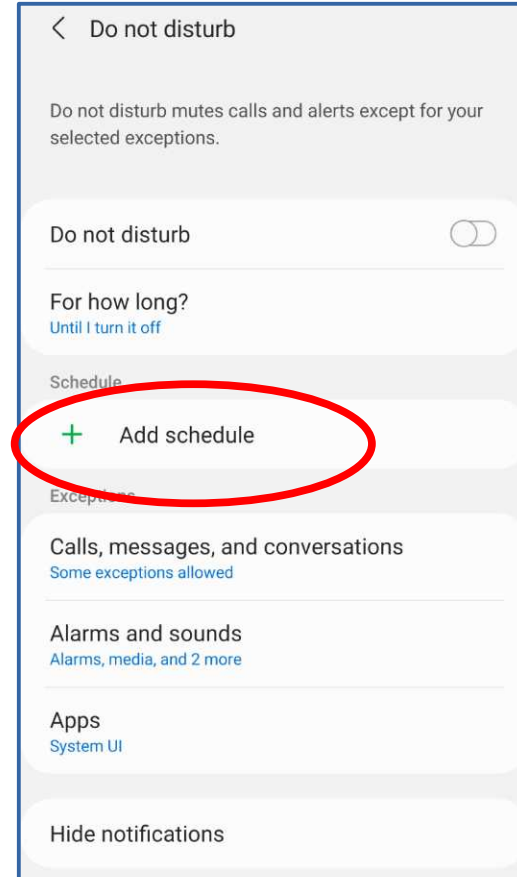
# The Android 11 technique

- On the Notifications screen, scroll down to **Do Not Disturb**, and tap that item.
- The **Do Not Disturb** screen appears.



# The Android 11 technique

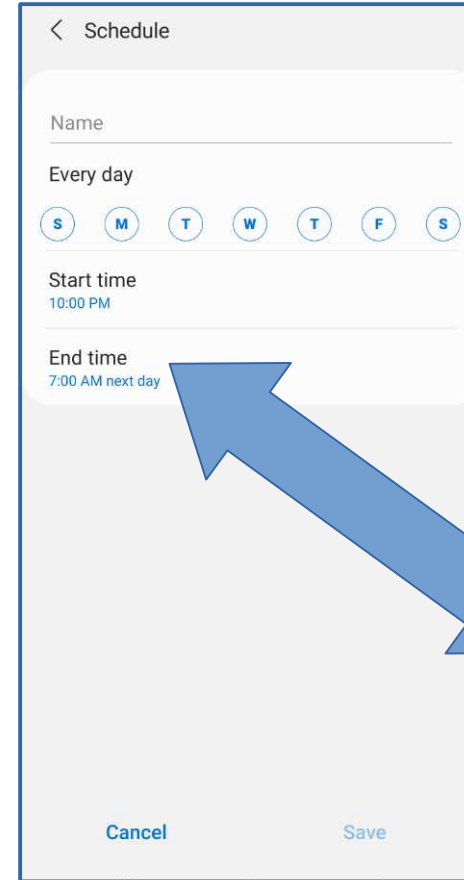
- In the Do Not Disturb screen, tap the label **Add Schedule**.
- The **New Schedule** screen opens.



# The Android 11 technique

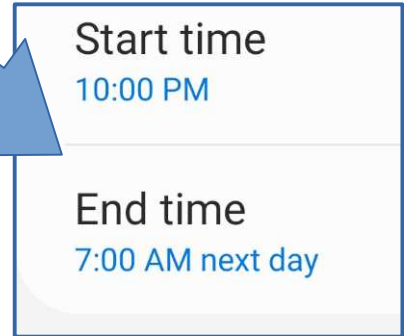
In the **New Schedule screen**, you can type a Schedule Name, select days of the week during which the schedule is in effect, and specify a start and end time for each day.

Default start and end times are 10 PM to 7 AM. The default days of the week is the entire week.



The screenshot shows the 'Schedule' screen with the following fields: 'Name' (text input), 'Every day' (radio button), 'Start time' (10:00 PM), and 'End time' (7:00 AM next day). A blue arrow points from the 'End time' field to a callout box on the right.

Our goal is to change the End time to 9:59 PM. **Tap the End Time.**

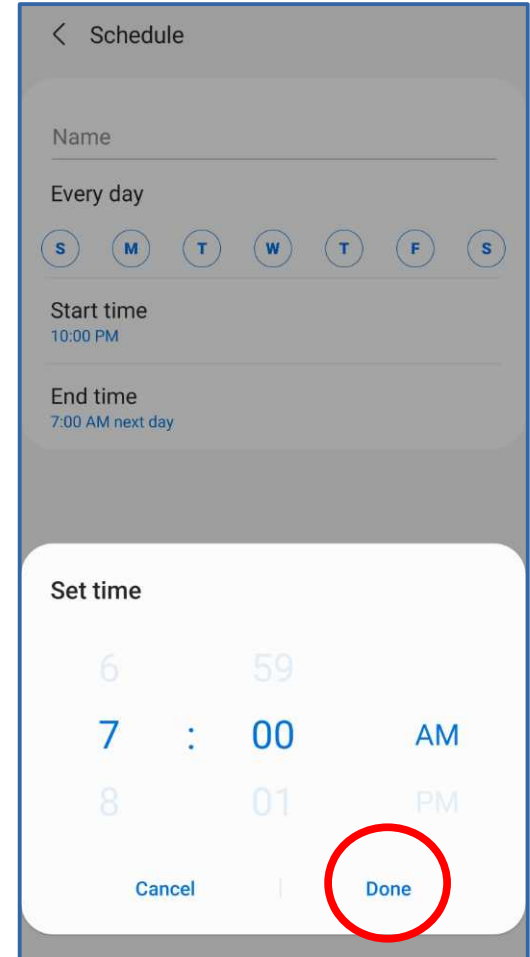


The callout box shows the 'Start time' field with the value '10:00 PM' and the 'End time' field with the value '7:00 AM next day'.



# The Android 11 technique

- A **Set Time popup** appears.
- It breaks the End Time setting into 3 parts: **Hours**, **Minutes**, and **AM/PM**
- Each part can be scrolled up or down to adjust the End Time.
- Change to 9:59 PM:  
Scroll 7 to 9, scroll 00 to 59, AM to PM
- Tap the **Done** button



# The Android 11 technique

- The popup disappears, and the Schedule screen now includes the new **9:59 PM** End Time.
- If the End Time is not correct, then tap it to edit it again.
- Tap the **Name field** at the top, and type a Name for the Schedule, such as “24/7”
- The **Save button** in the lower right corner becomes active.
- Tap the **Save button**.

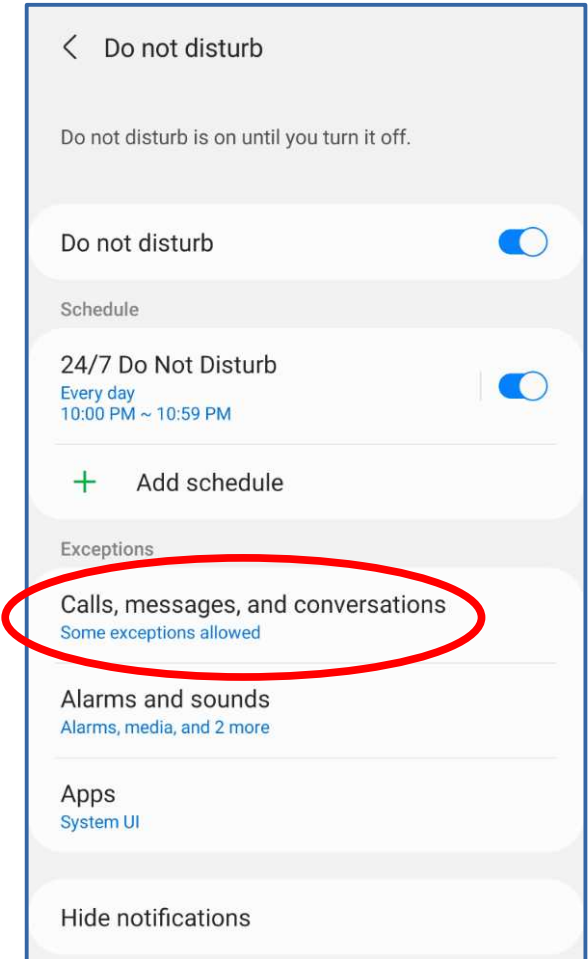
The screenshot shows the 'Schedule' screen in an Android 11 app. At the top, there is a back arrow and the title 'Schedule'. Below this is a text field containing '24/7'. Underneath the text field is a section labeled 'Every day' with a row of seven circular buttons representing the days of the week: S, M, T, W, T, F, S. Below the day selection is a 'Start time' field showing '10:00 PM'. Below that is an 'End time' field showing '9:59 PM next day'. At the bottom of the screen, there are two buttons: 'Cancel' on the left and 'Save' on the right. The 'Save' button is highlighted with a red oval, indicating it is the active button to be tapped.

# The Android 11 technique

After you Save your schedule, the **Do Not Disturb** screen looks like this. The area above **+ Add Schedule** shows the Schedule name and “Every Day 10:00 PM – 9:59 PM”

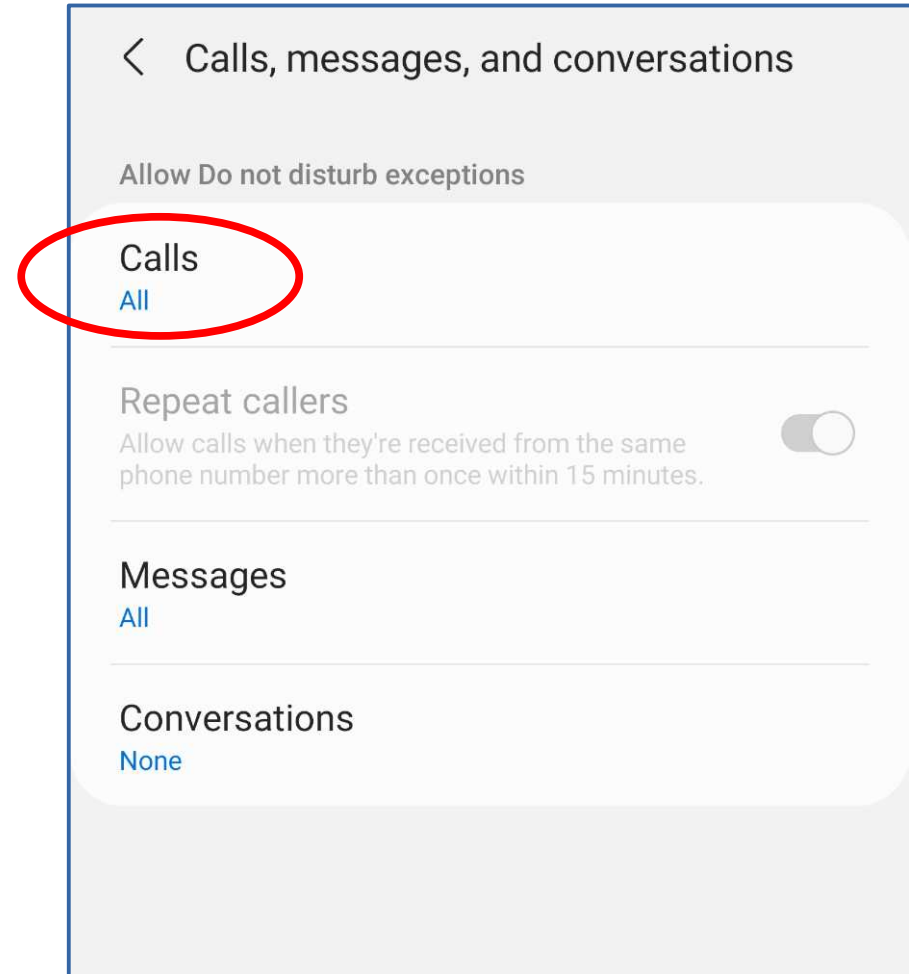
Tap the **Calls, Messages and Conversations** heading.

The **Calls, Messages and Conversations** screen appears.



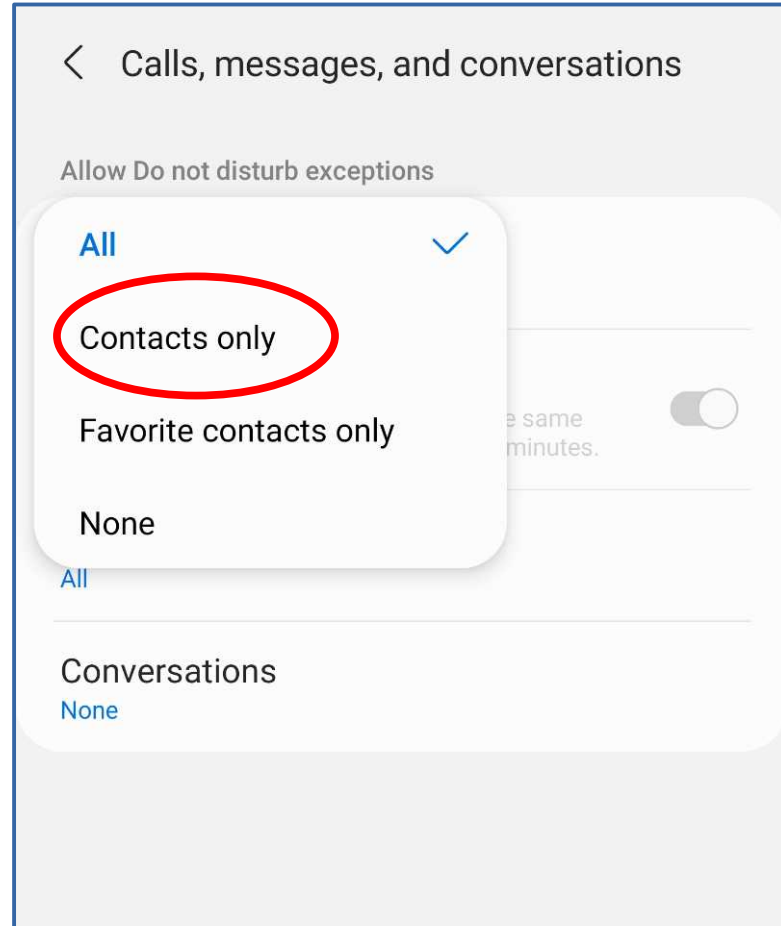
# The Android 11 Technique

- In the Calls, Messages and Conversations screen, the default value is most likely ALL.
- We will change the value to **Contacts Only**.
- Tap the **Calls** heading.
- A popup appears.



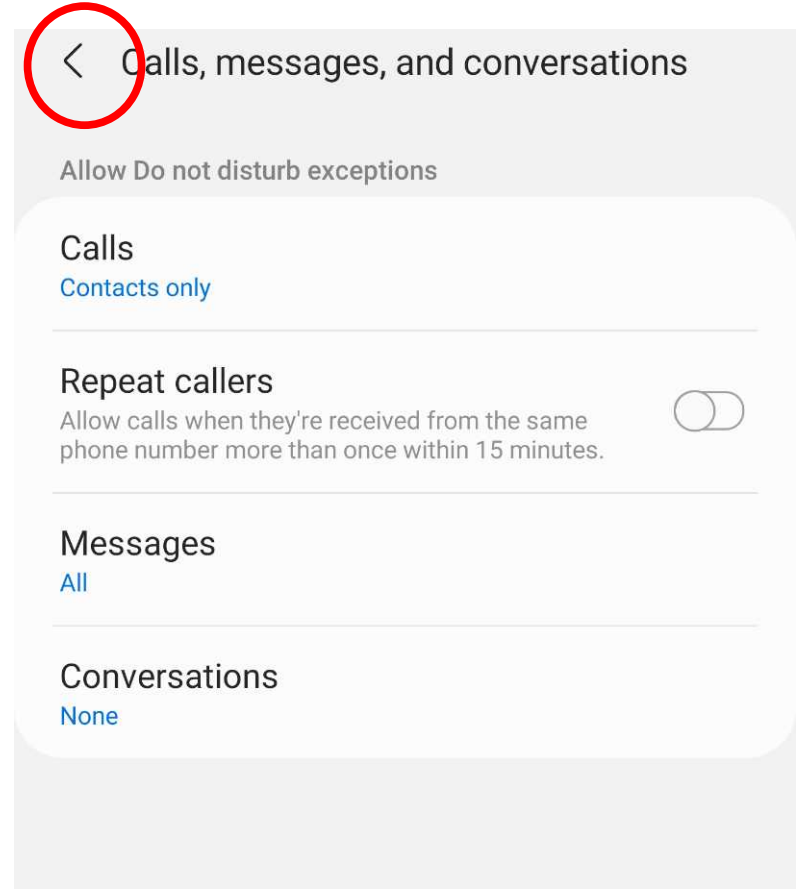
# The Android 11 technique

- In the popup, tap the **Contacts only** selection.
- The popup disappears.



# The Android 11 technique

- The **Calls, Messages and Conversations** screen now shows calls from **Contacts only** will ring your phone while Do Not Disturb is on.
- Tap the left arrow in the upper left corner to return to the **Do Not Disturb** screen.



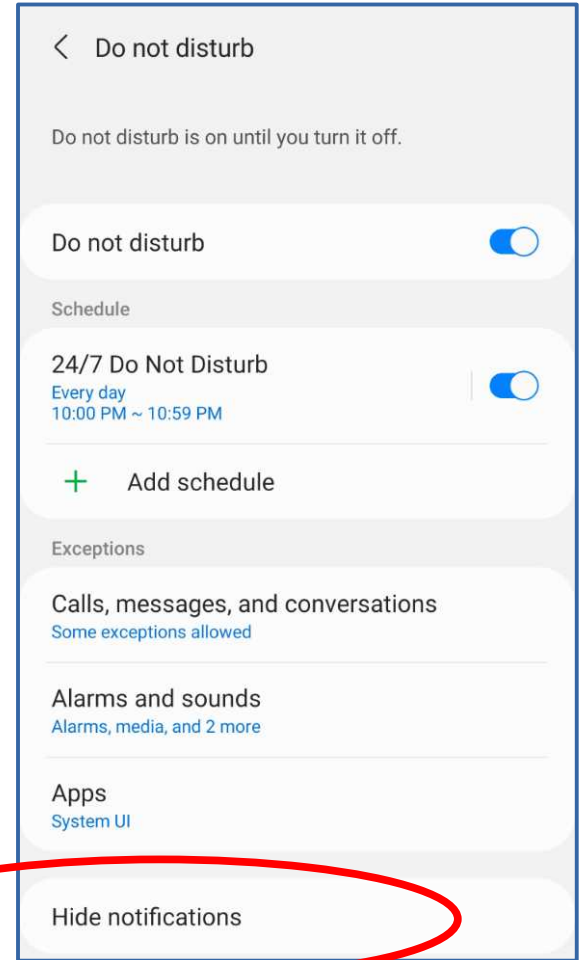
# ***I thought that was enough, but ...***

- While my son and I were shopping (separately) at a very large grocery store, my son called me.
- My phone screen was off and the phone was in my pocket. I heard the phone ring.
- **The screen stayed dark!** I saw no buttons to tap to accept or ignore the call!

# The Android 11 technique

In the **Do Not Disturb** screen, tap **Hide Notifications**.

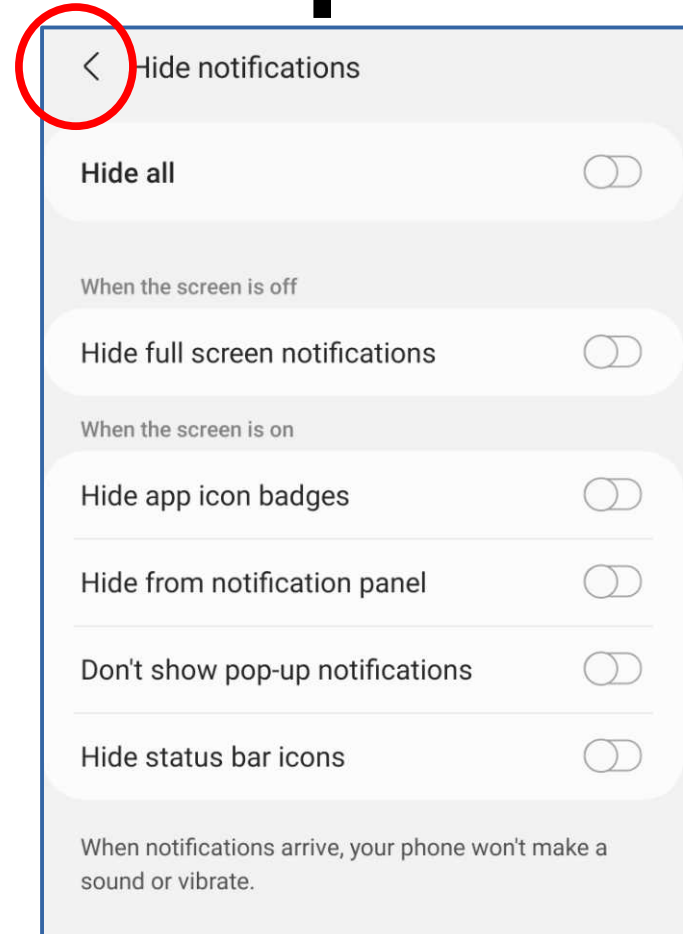
The **Hide Notifications** screen appears.





# The Android 11 technique

- In the Hide Notifications screen, **turn off every switch.**
- Tap the left-arrow in the upper left corner to return to the Do Not Disturb screen.
- Close the Settings app.



# The Android 8 technique

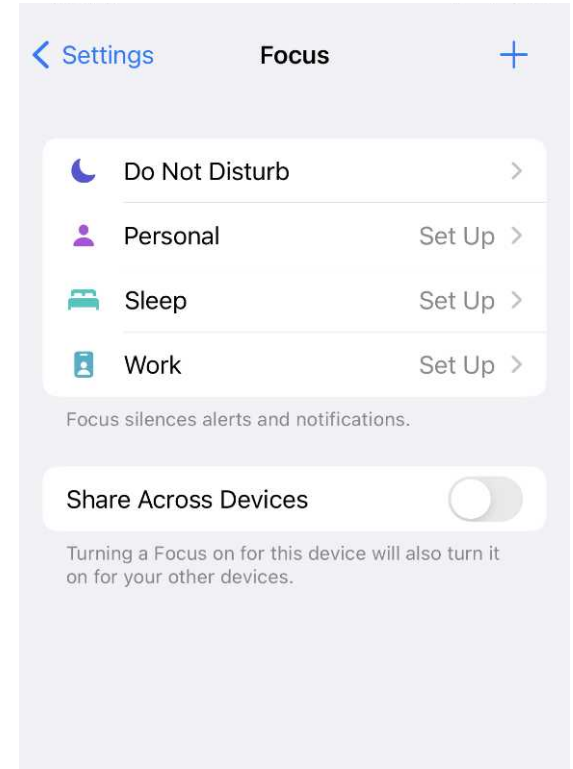
- Use this as the starting point, instead of Notifications:  
**Settings -> *Sound and Vibration* -> Do Not Disturb**
- You can also find Do Not Disturb by using the Settings **Search capability**.

# **Whitelist Configuration for iPhones & iOS 15**

# The iOS 15 technique

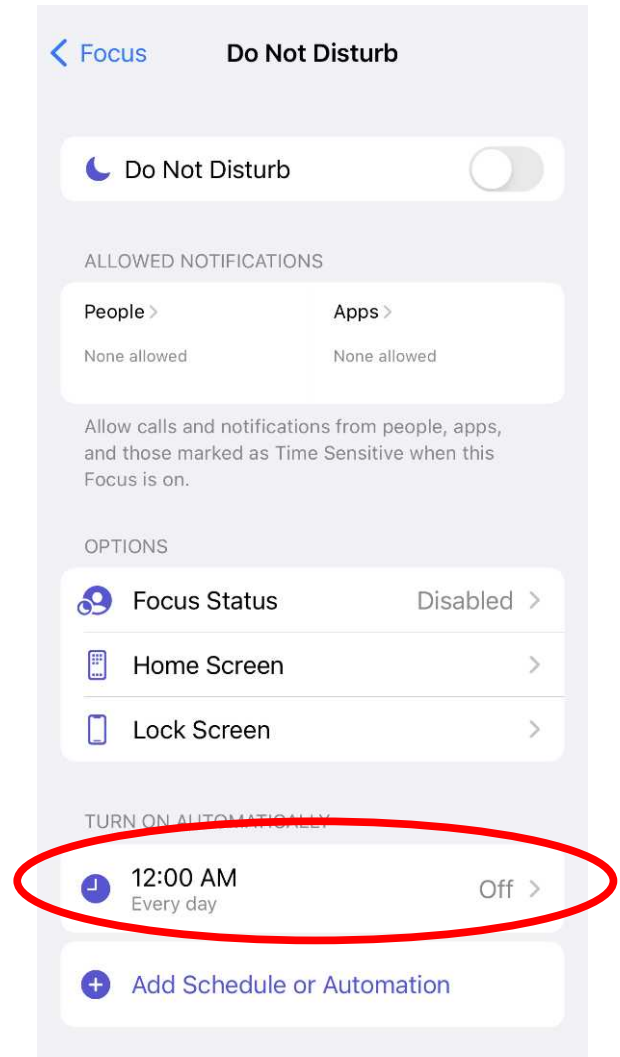
**Settings → Focus →  
Do Not Disturb**

- Open the **Settings** app.
- On that screen, find and tap the **Focus** item.
- The **Focus** screen appears.
- Find and tap **Do Not Disturb**
- The **Do Not Disturb** screen appears.



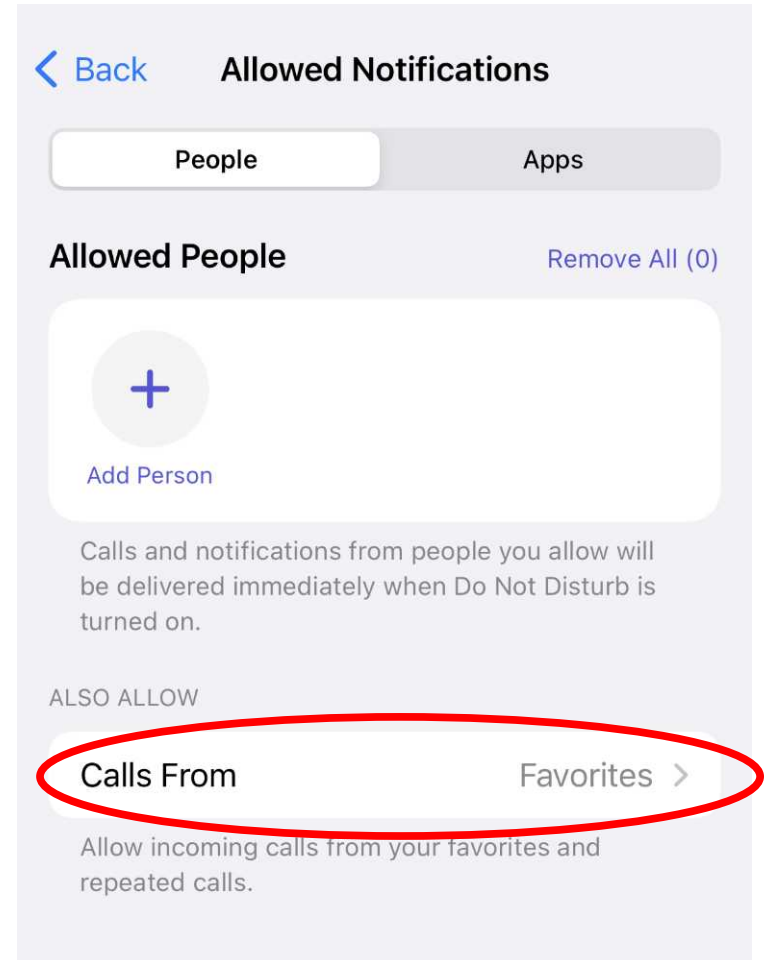
# The iOS 15 technique

- A default schedule exists, starting at 12 AM (midnight). **Tap that default schedule.**
- That schedule covers 24 hours 7 days a week. You can use it as is, without any changes.
- Tap the **Back arrow** to return to **Do Not Disturb**.



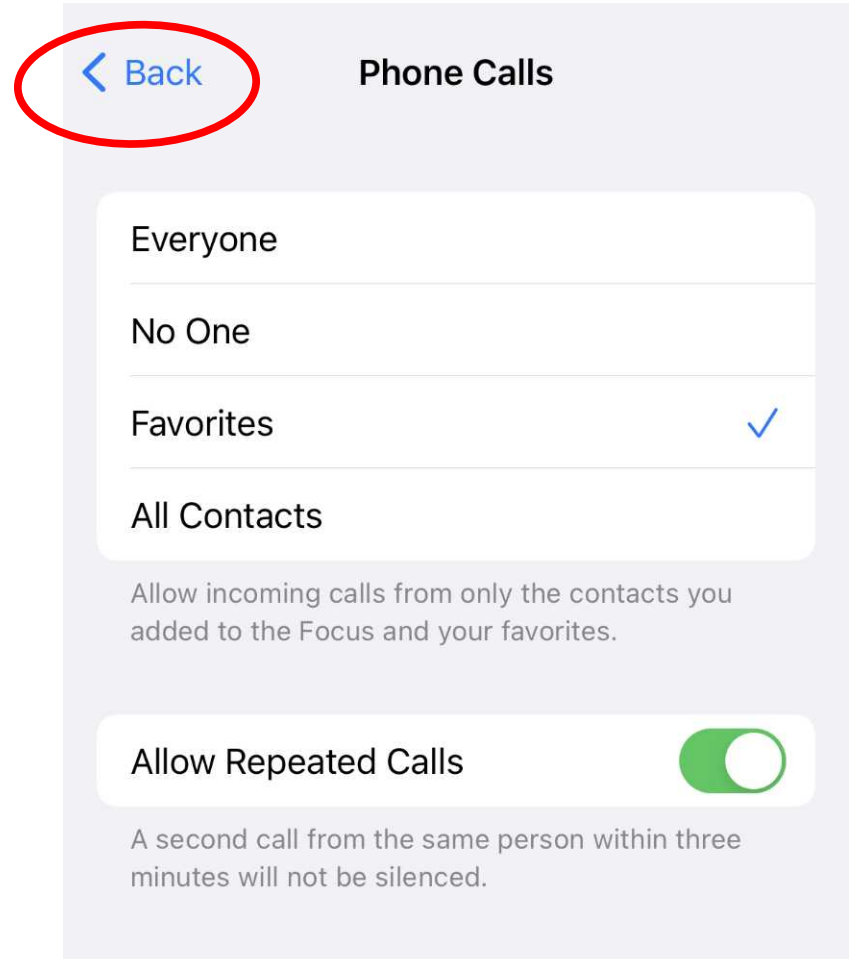
# The iOS 15 technique

- In the **Do Not Disturb** screen, under the heading **Allowed Notifications**, tap **People**.
- The **Allowed Notifications screen** appears. Here we set the exception for calls from **Contacts**.
- Tap the **Calls From** button.



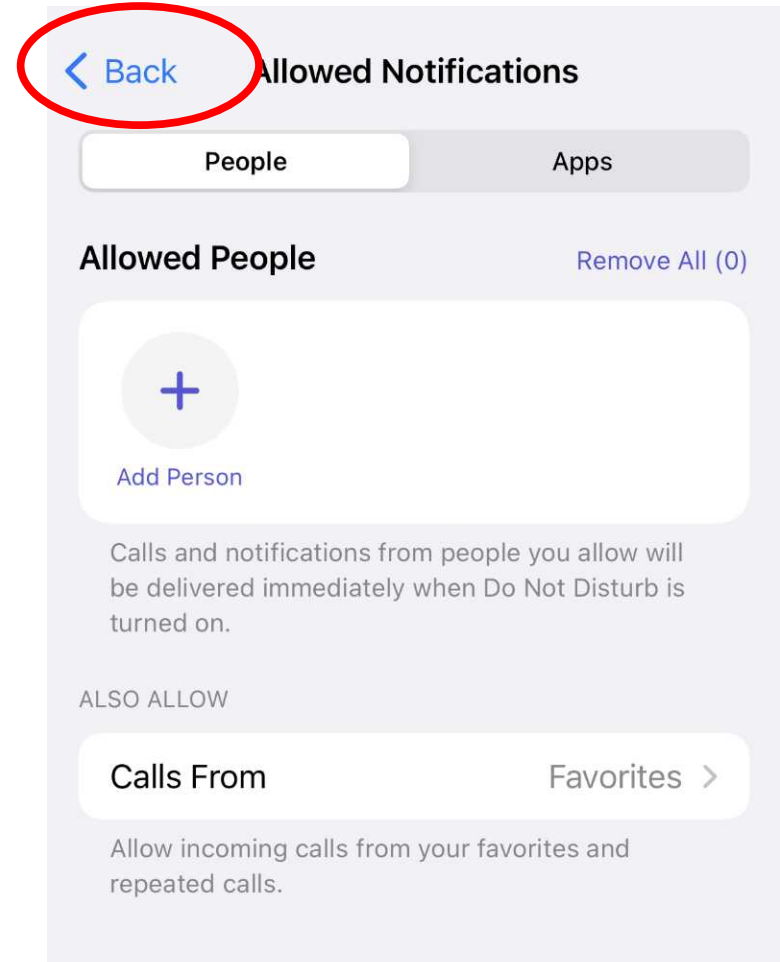
# The iOS 15 technique

- The **Phone Calls** screen appears.
- Tap **All Contacts**.
- Turn off the **Allow Repeated Calls** switch.
- Tap the **Back** button in the upper left corner.



# The iOS 15 technique

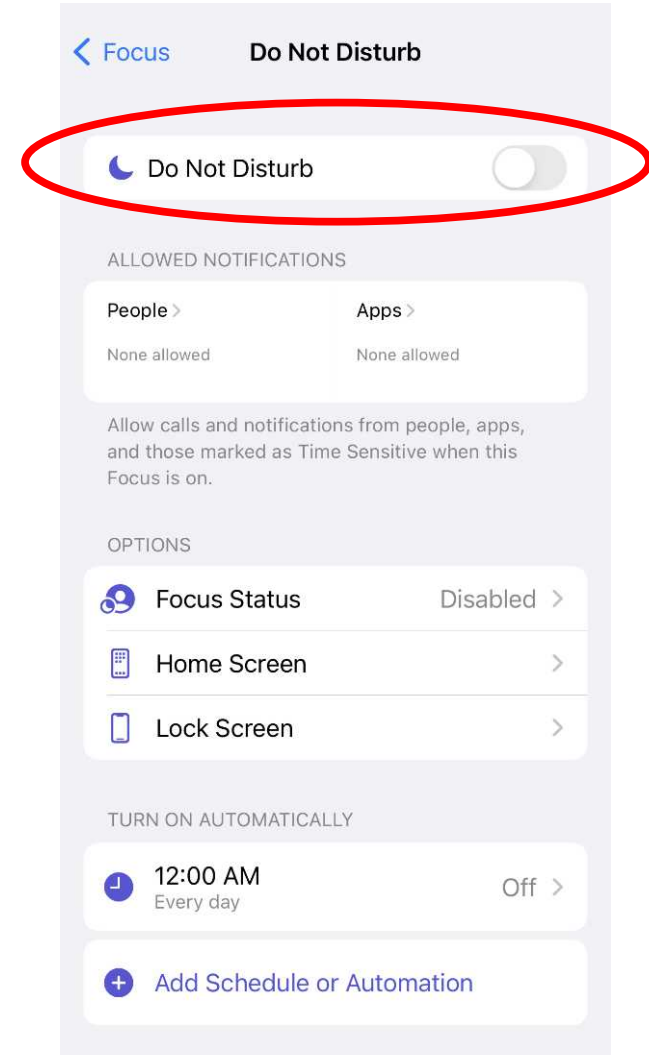
- In the **Allowed Notifications** screen, tap the **Back** button in the upper left corner.





# The iOS 15 technique

- In the **Do Not Disturb** screen, turn on the **Do Not Disturb** switch.
- You can turn off the Do Not Disturb switch anytime you expect an incoming call from anyone not in your Contacts list.
- After receiving that call, if you forget to turn Do Not Disturb on, then the schedule will do that for you.



# Keep your Contacts up to date

Here are some examples of numbers you might not yet have in your Contacts:

- Your doctors
- Your lawyers
- Your veterinarian
- Your stock brokers
- Your bankers
- Publishers Clearinghouse

# Robocall blocking apps

- **Nomorobo**, \$2 per month or \$20/year. Claims to update its blacklist of known robocallers every 15 minutes. Not much info is on its web site to describe how it does what it does.
- **YouMail**, free. Probably supported by ads. Redirects your incoming calls to their server.
  - Enforces its **Blacklist** and plays the **Special Information Tones** to blacklisted callers.
  - You must give your Contact to YouMail. Calls from your Contacts are redirected back to your phone.
  - All voicemails are saved on YouMail servers, and are transcribed and sent to you as text messages. Also, you can listen to those voicemails.

# **HOW TO PREVENT ROBOCALL VOICEMAILS**

**Lie to robocaller systems!**

# Understanding Robocall Systems

- Robocaller systems are designed for **time-efficiency**.
- Each of the systems keeps a list of numbers known to be in service, and call those numbers ad nauseam.
- The Robocaller systems recognize any number that answers is a valid number. Answering includes going to voicemail.
- Calling numbers known to be Not In Service is a waste of Robocaller system time.
- The systems recognize any number that answers with **Special Information Tones (SIT)** is **disconnected**.

# Understanding Robocall Systems

- Robocall systems recognize SIT tones and **do not leave voicemail** on numbers answered with SIT tones.
- Robocall systems assume such numbers are disconnected.
- Robocall systems delete disconnected numbers from their list of active numbers.
- ***We can take advantage of that behavior.***

# Your voicemail greeting options

There are three general options for voicemail greetings:

- **1. Automatically state your phone number**, for instance:  
"You have reached 703-555-1111. Please leave a message after the beep."
- **2. Play a recording of you pronouncing your name**, for instance:  
"You have reached the phone of John Krout. Please leave a message after the beep."
- **3. \*\*\* Play a recording of whatever you want to say for your greeting \*\*\***

# Transcript of my custom greeting

- Hi, this is John. No, my number is not disconnected. Those tones were just meant to convince robocallers not to call me again. You can leave a message after the beep. Thanks!



# Transcript of my custom greeting

- Hi, this is John. No, my number is not disconnected. Those tones were just meant to convince robocallers not to call me again. You can leave a message after the beep. Thanks!
- On the next slide, you will hear my voicemail greeting.

# Listen to my voicemail greeting

- Produced on a Windows 10 computer
- SIT tones downloaded from public sources
- Free **Audacity software** was used to record my voice, and add my voice recording to SIT tones



# Impacts of the custom greeting

- Robocall systems *hang up without leaving a voicemail.*
- Robocall systems *remove my number* from their active number lists.
- Most of my friends listen to the entire voicemail and leave a message.
- Friends who call and do not leave a message are listed by name in **Recent Calls**, so I can call them.

# Learn from My Experience

- In 2018, I was receiving roughly **25 robocall voicemails per week**. Robocall voicemails were filling up my voicemail box.
- In mid-2018, I started using the Verizon Wireless Call Filter blacklist app to block robocalls. It excluded many but not all. I was still receiving roughly **12 robocalls per week**.
- In July 2019, I installed **my custom voicemail greeting** with SIT at the beginning of my greeting. After 8 months of experience, my rate of incoming robocalls fell to **2 per week**.
- **After 8 months of experience, my rate of robocall voicemails fell to Zero per week.**

# **How to Make and Install a Custom Greeting**

# How to make a custom greeting

Break the entire greeting strategy into parts:

- Obtain the SIT tones recording
- Record your own voice greeting
- Prepare a **combined greeting** including the SIT tones and your voicemail greeting

# Download my cleaned-up SIT tones WAV file

- Original audio file was posted on the web as a free download.
- Cleaned-up means I removed audio noise
- <https://bit.ly/3Bked11>

Scan the QR code



# How to Record your voice greeting

- Write a script, or use mine.
- Download a voice recording app for your phone.
- Set the app to record in Mono (not stereo) and highest quality.
- Record your voice using the app.
- Copy the recording file from your phone to your computer.
- If you download the SIT tone WAV file to your phone, then copy that to your computer also.



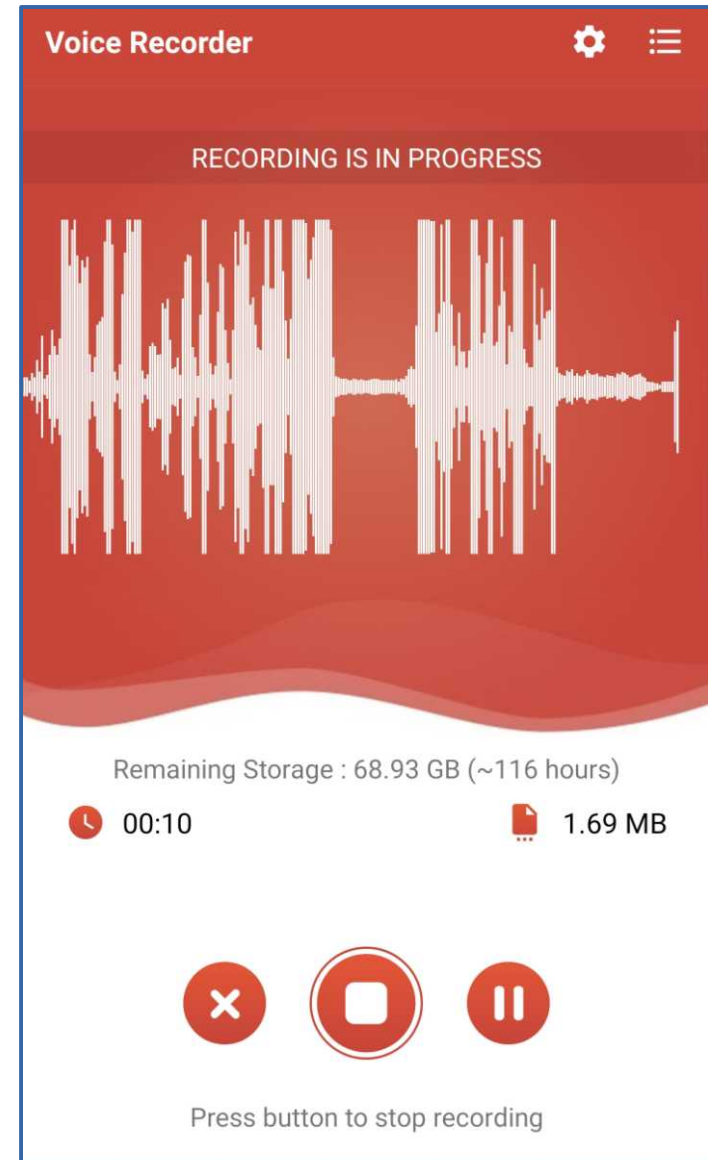
# An Android voice recording app

The free app I use is:  
**Voice Recorder**

Published by  
Raytechnoto Labs

Adjust recording quality  
using the Gear button (settings) in the  
upper right corner

This app stores its recording files in the  
**Internal Storage** →  
**QuickVoiceRecorder** folder

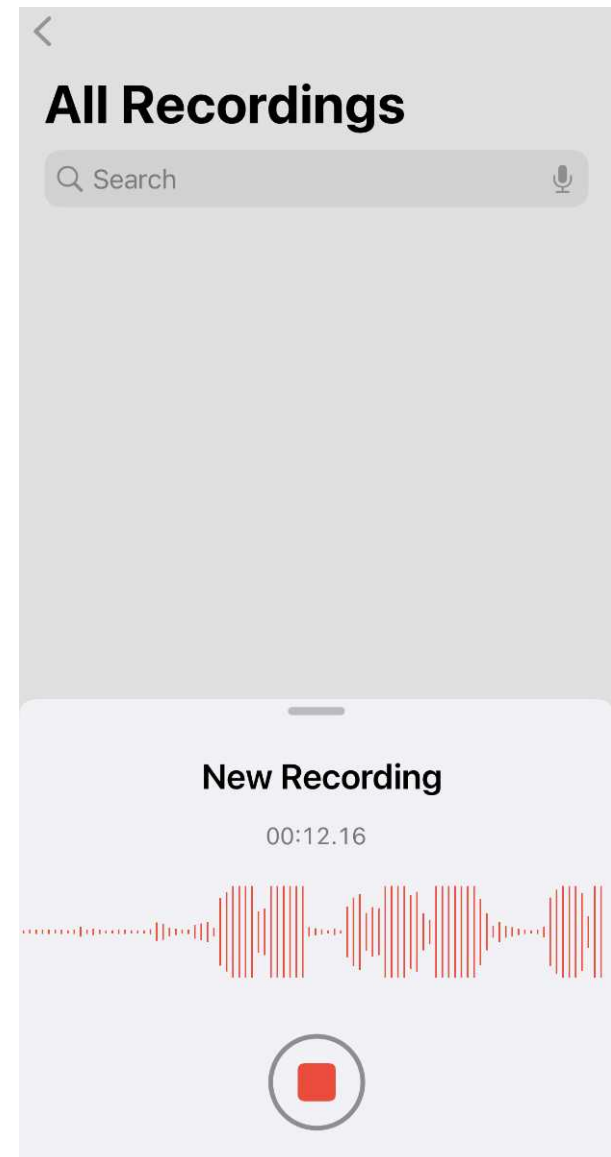
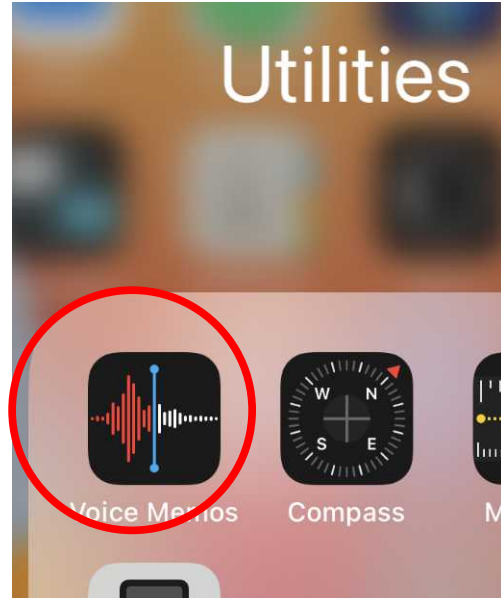


# The iOS Voice Memos app

Found in the  
**Utilities** folder

Recording Files can be  
saved to **iCloud Drive**  
and accessed from  
there on your  
personal computer.

Change audio quality to Lossless in  
**Settings**→**Voice**  
**Memos**→**Audio Quality**



# How to prepare a combined greeting

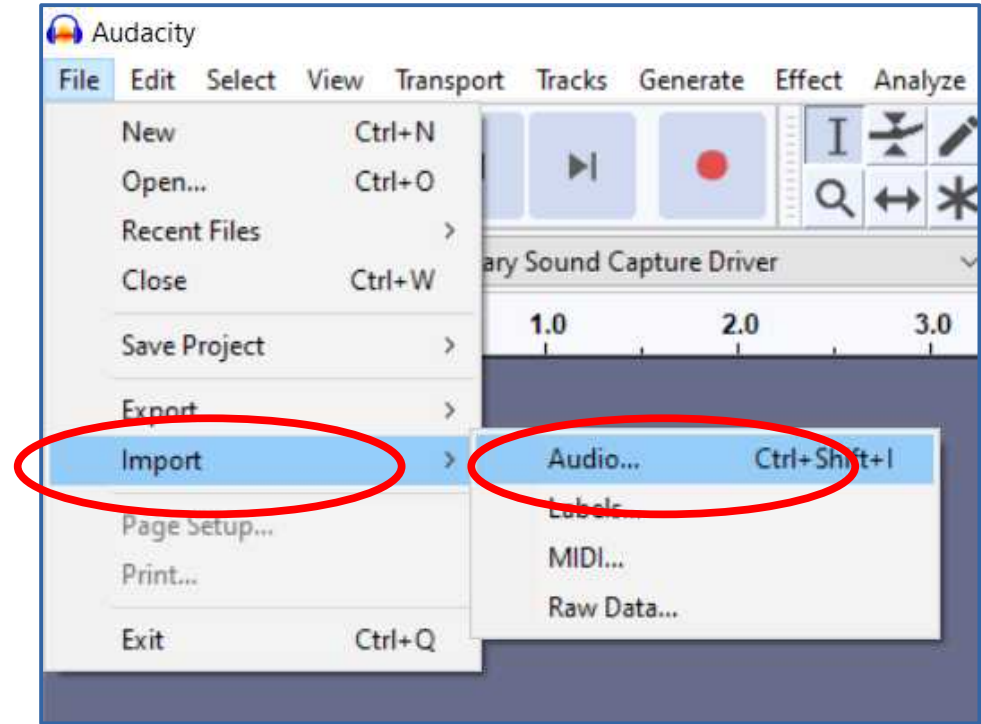
- Download and install the free **Audacity** audio editor application.
- Available for Windows, Mac and Linux.
- <https://www.audacityteam.org/>

# About these Audacity steps

- These steps were done, and screen images captured, on Windows 10 Home 64-bit 20H2 and Audacity 3.0.2.
- The Audacity steps to combine the opened WAV files should be identical on Apple or Linux computers

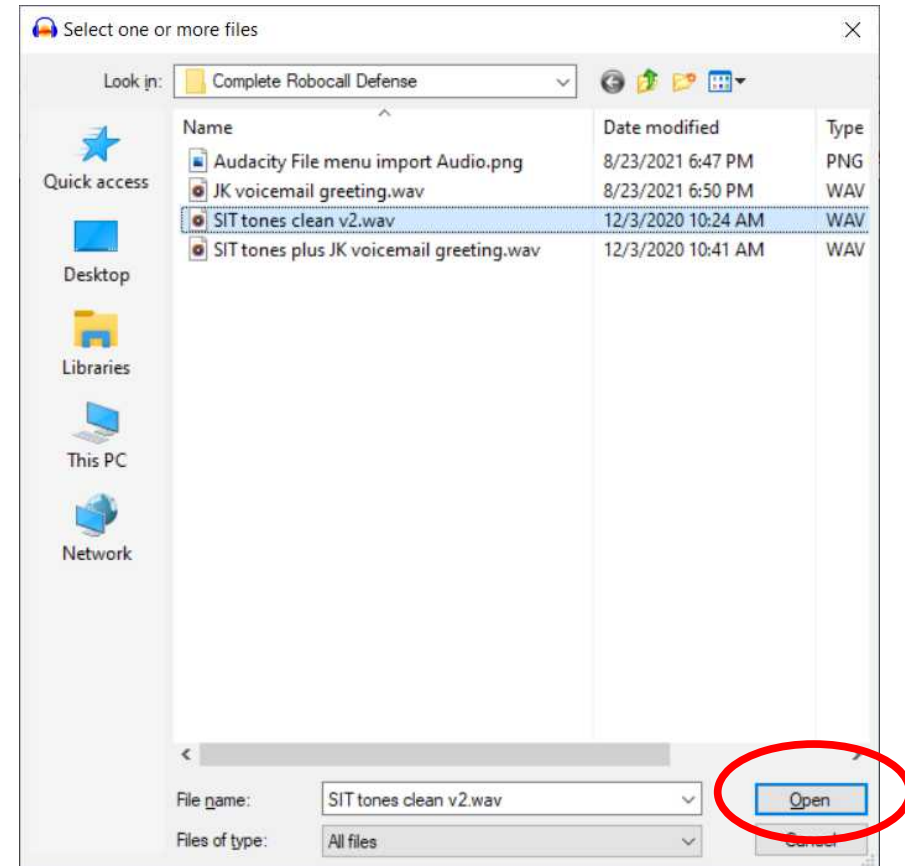
# Audacity: How to open an audio file

- Pull down the Audacity **File** menu
- Select the **Import** choice
- A sub-menu appears
- In the sub-menu, select the **Audio** choice



# Audacity: How to open an audio file

- A standard Open File dialog box appears.
- Use the dialog box to find and select your SIT WAV file.
- Click the **OPEN** button.



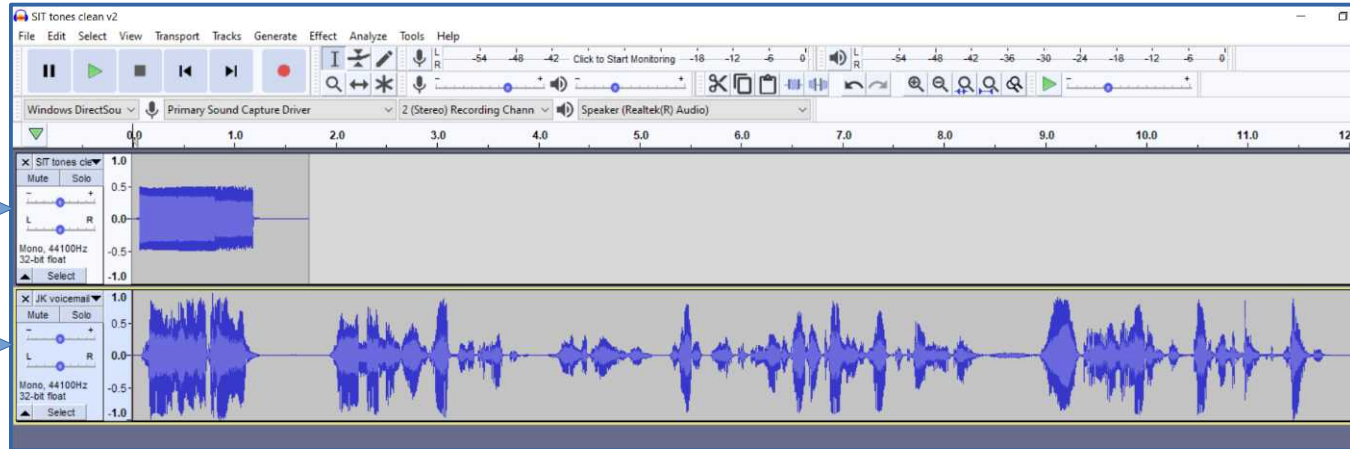
# Audacity: import your voice audio file

- The File menu method is identical: FILE→IMPORT→AUDIO
- Find and select your voice audio file using the Open File dialog box.
- The voice audio file appears in a **second track**, below SIT

**Tones in the first.**

SIT tones track

Voice track



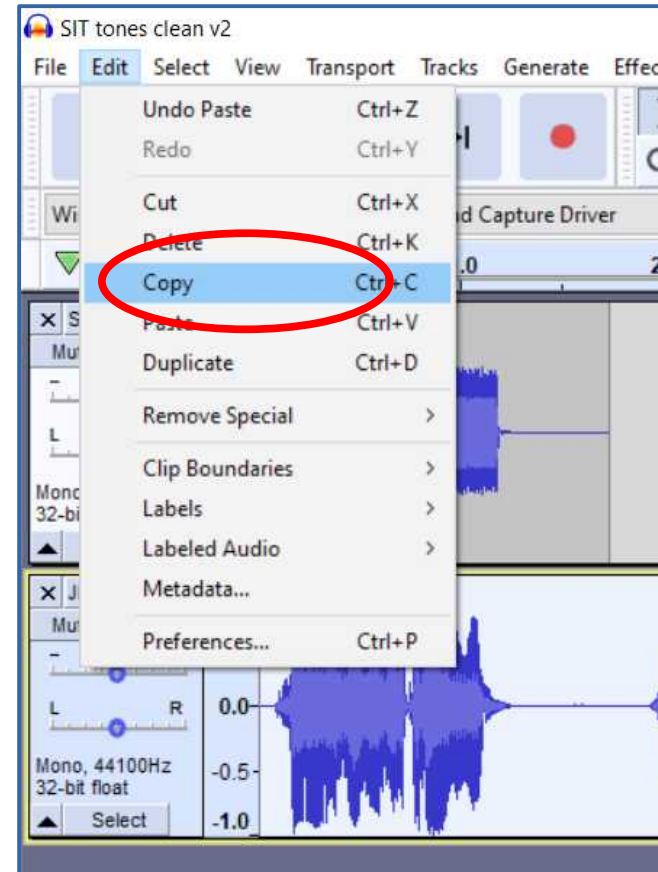
# **Audacity is very much like a word processor application**

- In a word processor, you can move around words, sentences and paragraphs.
- You can also delete text material that is no longer useful.
- You can select text material to be Cut or Copied, and place your cursor where you want to Paste text the Cut or Copied material.
- With Audacity, instead of text, you can manipulate audio in the same ways: Cut, Copy, Paste, Delete.



# Audacity: Combine SIT and voice audio

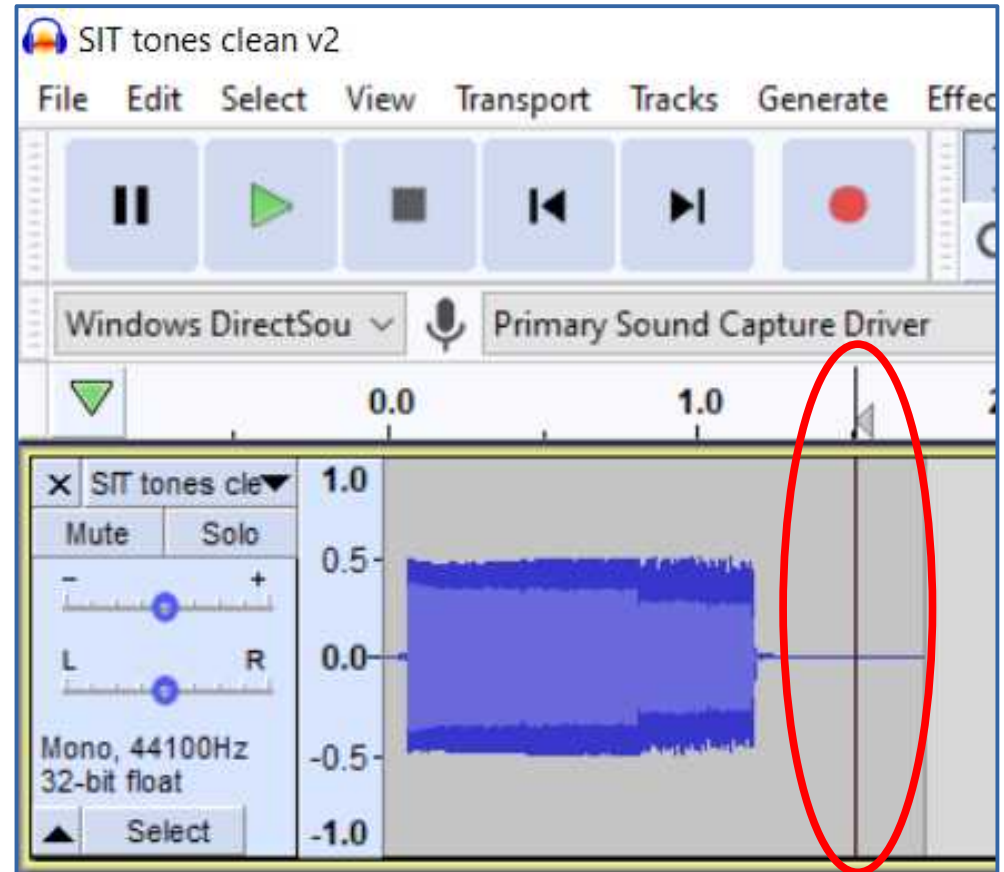
- When the track is highlighted, pull down the Audacity **Edit** menu.
- Choose **Copy**.
- Alternatively, skip the menu and tap **Ctrl-C**.



Highlighted track

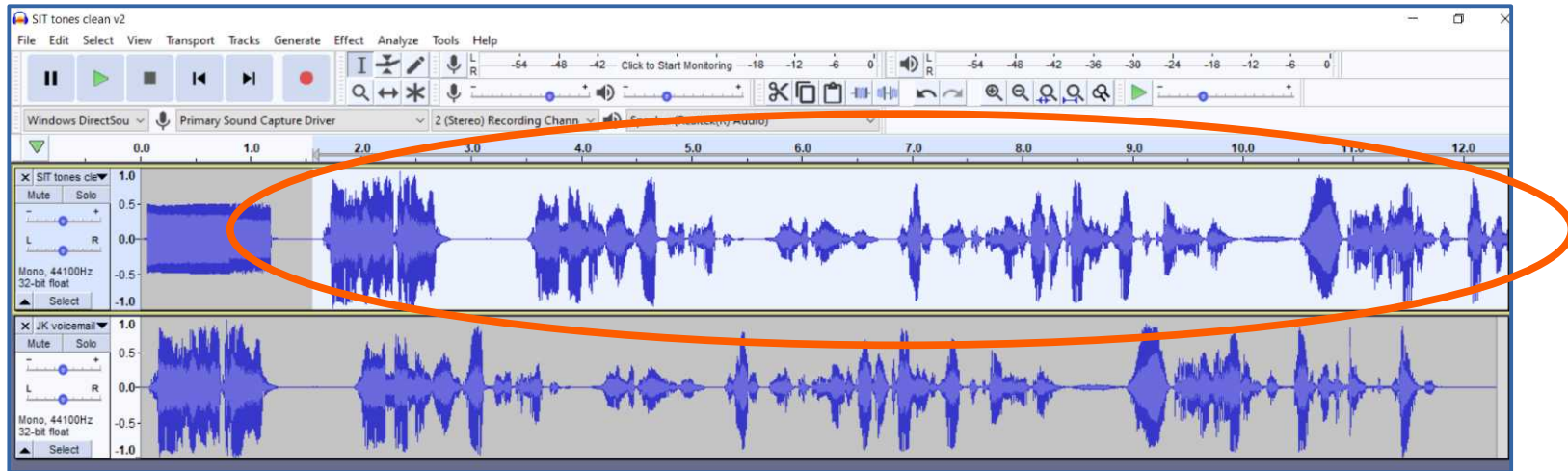
# Audacity: Combine SIT and voice audio

- Notice the time scale across the top of the tracks.
- Click the SIT track about  $\frac{1}{2}$  second after the audio ends in that track.
- A **vertical cursor** appears where you clicked.



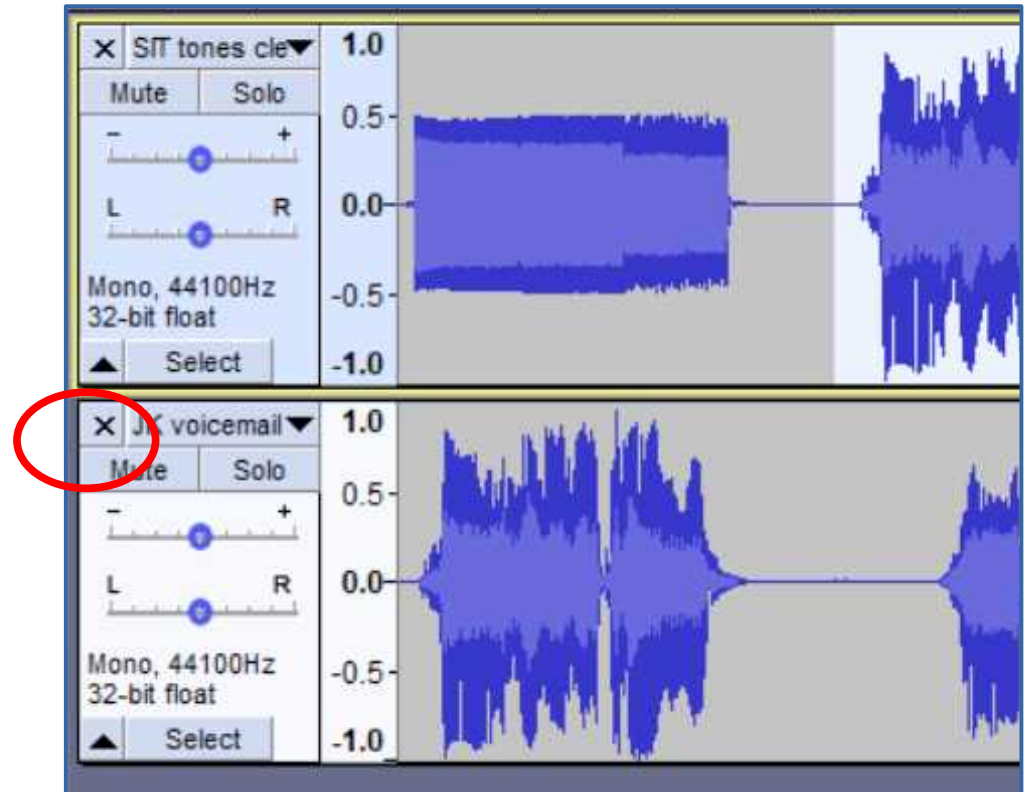
# Audacity: Combine SIT and voice audio

- Pull down the Audacity **Edit** menu and choose **Paste**, or tap **Ctrl-V**.
- The voice track audio is pasted into the SIT WAV track, starting at the vertical cursor.



# Audacity: close the Voice track

- We no longer need the second track.
- Tap the **X** in the upper left corner of the second track.
- That button **removes the track**.



# Audacity: Save the combined greeting

- Pull down the Audacity **File** menu and choose **Export**.
- In the sub-menu, choose **Export as WAV**.
- Use the standard dialog box to select a known folder and export the combined audio file to that folder.
- Note: **File** → **Save** *does not save an audio file*.

# **GREETING INSTALLATION**

# Installing the Combined Greeting

- Each greeting resides not on the phone but on servers of the carrier companies (e.g., AT&T, T-Mobil, Verizon Wireless)
- The carrier companies play the greeting even when the phone is turned off or away from a cell tower.
- The carrier companies ***do not permit uploading of an audio file*** to use as a voicemail greeting.
- We must “speak” our combined greeting while the phone is set to record our greeting onto the servers.

# The phone steps to speak a custom greeting

- The method on the smart phone varies. Each carrier company its own method.
- Learn and practice the method for your carrier company ***before*** you try to “speak” the combined greeting audio file as a custom greeting.



# Three ways to “speak” the combined greeting

All use a personal computer to play the combined greeting recording file, while the phone is set to record.

- **Lo-fi:** Hold the phone to a computer speaker, and play the combined greeting recording.
- **Cash Out of Pocket:** Use an **attenuator cable** to connect the computer audio output socket to the phone’s headset socket.
- **WiFi:** Send the computer audio to the phone’s microphone over your LAN WiFi.

# The WiFi method

- So far, I have found a workable method only for Android.
- It uses a personal computer application called **SoundWire Server**, and a corresponding phone app called **SoundWireFree**.
- Both are freebies.
- Your computer and phone must be on the same Local Area Network (LAN). Shut down VPN clients on your Android phone and your computer.
- The computer application captures computer audio and sends that audio to the phone app via LAN.



# Android SoundWireFree app

- Android phone owners, scan this QR code to go directly to SoundWireFree in the Google Play Store:



# SoundWire computer application

The application is  
available for free from:

- <https://georgielabs.net>

# The Georgielabs.net home page

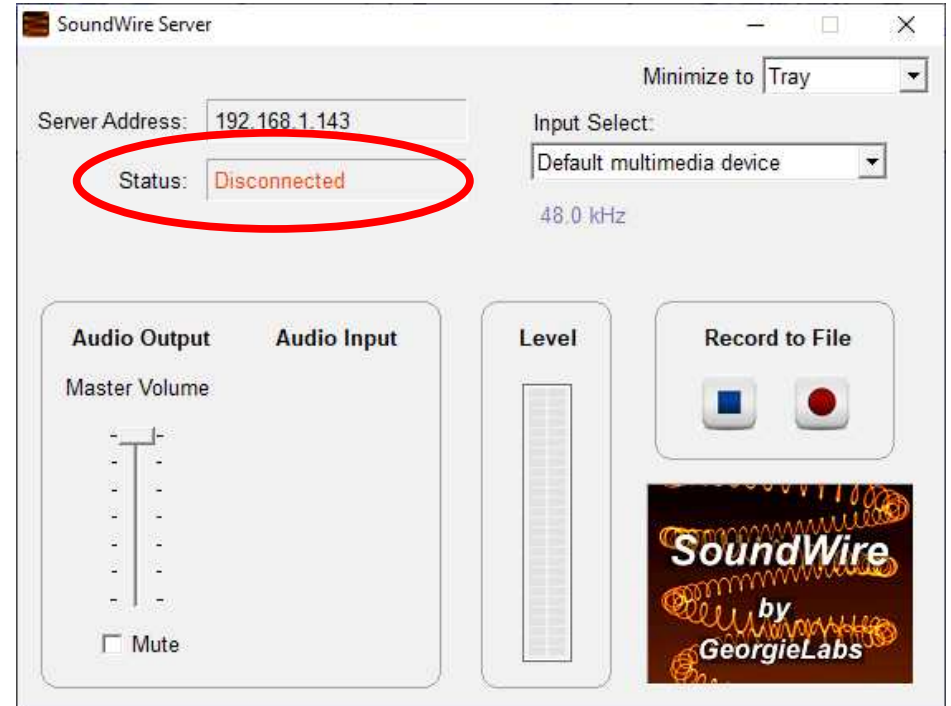
- It supports Windows XP and later versions, Linux, and Raspberry Pi, **but not Mac**.
- Click on the version for your personal computer OS.
- Download and install the application.

Click on your OS



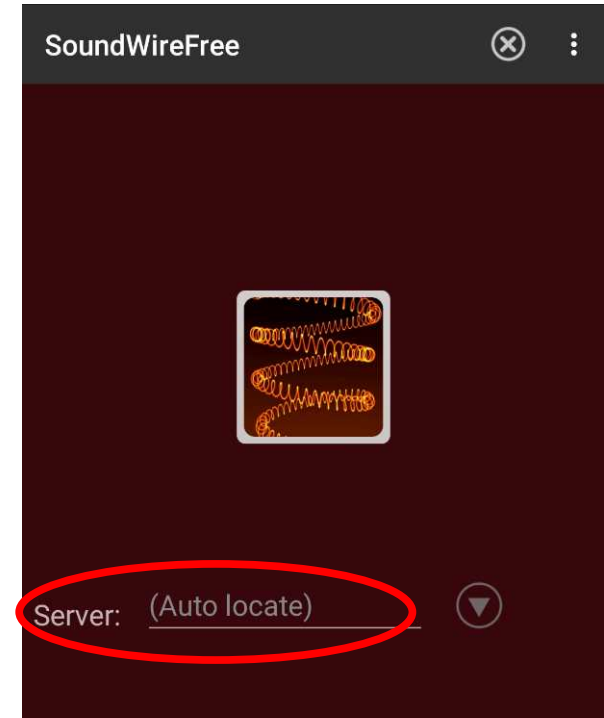
# Run the SoundWire computer application

- The **Server IP address** is critical info that you may need to copy into the phone app.
- The initial status **Disconnected** is normal.



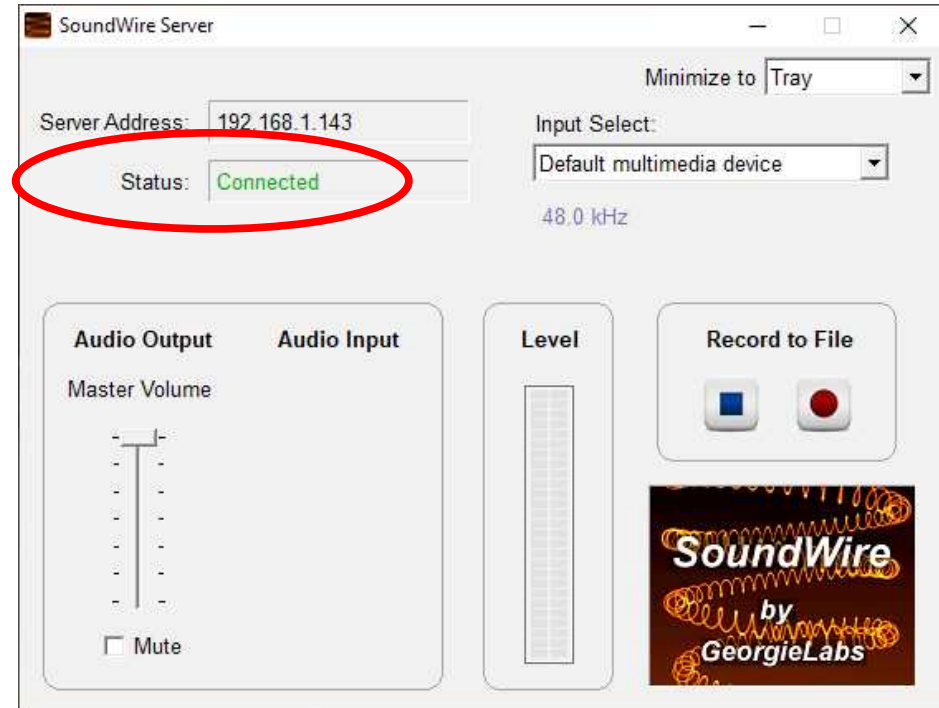
# SoundWireFree app for Android

- This screen image was captured on a Samsung Galaxy S10 phone running Android 10.
- Tap and hold the **Big Button** in the app for about 1/3rd second.
- The app may automatically connect to the computer application.
- If not, then type the **Server IP address** into the **Server** field, and tap and hold the **Big Button** again.



# When the app is connected

The word **Connected** replaces  
Disconnected in the  
**SoundWire Server** window.



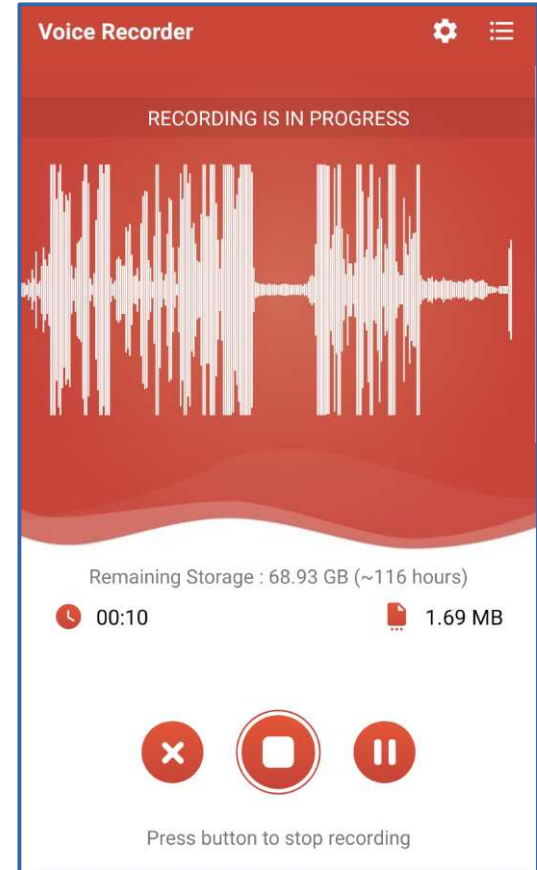


# Testing SoundWire audio transfer from PC to Android phone

- Any computer application that plays sound will do: **Audacity, VLC, iTunes**, etc.
- Confirm that the sound played on the computer is also played on the phone, delayed about 1/4th second.

# Testing SoundWire audio transfer from PC to Android phone

- Any computer application that plays sound will do: **Audacity**, **VLC**, **iTunes**, etc.
- Confirm that the sound played on the computer is also played on the phone, delayed about 1/4th second.
- Record the test audio using a recording app on the phone, preferably one that displays an oscilloscope-like graph of the audio.
- Adjust computer audio level so graph is tall, like you see here.



# Cash out of pocket method

- This method uses inexpensive cables to transfer analog audio from the computer headphone/speaker output socket to the phone's headset socket.
- The computer produces LINE level analog audio, which is roughly 500 times stronger than the headset socket on the phone expects to receive.
- Use an **attenuator cable** to reduce the audio level from the computer to the level appropriate for the microphone input.

# An attenuator cable example

- I bought my most recent attenuator cable from **MyCableMart.com** in August 2021. The web site calls it an adapter but it does attenuate.
- Part number **FE-ADT-385**, about \$15 including shipping. Product page:  
[www.mycablemart.com/store/cart.php?m=product\\_detail&p=8530](http://www.mycablemart.com/store/cart.php?m=product_detail&p=8530)
- Amazon carries many attenuator cables at higher prices. Buy a 25dB version; **do not buy a 35dB version.** dB is a measure of attenuation.



Scan the QR code



# Comments about this method

- Use the iPhone built-in **Voice Memos app** for making test recordings.
- When connected directly to the phone, the Attenuator cable disables the phone's speaker.
- I could not install a voicemail greeting using my ancient iPhone 5 because it is retired. But the cable provided very good quality test audio.
- Recent models of iPhone lack a headset socket. Use the **Lightning to headset adapter cable**. Not sure if that connection will disable the phone's speaker.

# Lightning to Headset adapter cable

- Apple part ID: MMX62AM price \$9
- <https://www.apple.com/shop/product/MMX62AM/A/lightning-to-35-mm-headphone-jack-adapter>
- Sold in Apple stores
- Socket end acts as Headset socket
- Useful for recent Apple iPhone/iPad models with no headset socket
- Headset socket end connects to MyCableMart.com attenuator cable

Scan the  
QR code



# Comments about this method

- I used this method with my Android phone and a 35dB attenuator before I found and tested the SoundWire app.
- The first two times I recorded the combined greeting using the phone with the attenuator cable, the audio level was too low for the Verizon Wireless server to recognize.
- The Verizon Wireless server failed over to the default greeting #1, announcing only the phone number.
- You can use the **computer's Volume control**, the computer **application's volume control**, and the phone's **Volume control** to adjust volume up or down.

# Apps mentioned in this presentation

Android  
**Voice  
Recorder**



Scan to install  
the app





# Apps mentioned in this presentation

Android  
**Voice Recorder**



Scan to install  
the app



Android  
**SoundWireFree**



Scan to install  
the app



# Apps mentioned in this presentation

Android  
**Voice Recorder**



Scan to install  
the app



Android  
**SoundWireFree**



Scan to install  
the app



iOS **Voice Memos:**

already installed in the iPhone Utilities folder

# **New Verizon Wireless Monitoring Policy**

# New Verizon Wireless (VZW) policy

- In early January 2022, VZW introduced a new policy of tracking **all your uses of apps and web pages** on your VZW phones and tablets
- This policy is now **imposed by default** on your VZW phones and tablets.
- VZW claims the benefit for you is to more precisely customize offers (meaning ads) from VZW and possibly third parties.
- There are ways to **OPT OUT** of the new VZW policy.
- Read this **Wired Magazine** article:  
[www.wired.com/story/verizon-user-privacy-settings/](https://www.wired.com/story/verizon-user-privacy-settings/)

Scan the QR code  
To see the article



# Preview of Coming Attractions

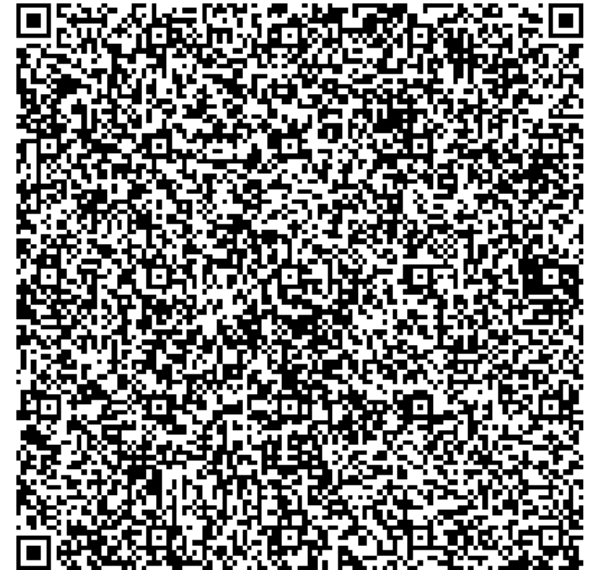
Next PATACS Meeting **Saturday February 19 at 1 PM ET**

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**Provide your name,  
city and state,  
and user group name**

Scan the QR code  
to create the email



# **THE END**

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