Smartphone Communication Apps and their dirty truth

Amber Schroader, CEO

amber@paraben.com

@gingerwondermom

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Speaker Introduction:

Amber Schroader

- CEO and Founder of Paraben Corporation
- 20+ years digital forensic experience
- Active investigator
- Designed first commercial tool for mobile forensics
- Published in multiple books on digital forensics
- Sci-Fi Geek
- Domestic arts ninja
- Good sense of humor ☺



twitter
@gingerwondermom

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BIZARROCOMICS.COM
Do you mind if I strap your phone to my forehead so I can pretend you're looking at me when I talk?
PIRATE ROBOT 2
10-25-11
Dist. by King Features

How Many People Have Smartphones In The World?



3.50Billion
smartphone users in the world today



44.69%
of people have smartphones today

According to Statista, the **current number of smartphone users in the world today is 3.5 billion**, and this means **44.69% of the world's population owns a smartphone**. This figure is up considerably from 2016 when there was only 2.5 billion users, 33.58% of that year's global population.

How Many People Have Mobile Phones In The World?



4.78Billion
mobile phone users in the world today



61.04%
of people own mobile phones today

In 2020, including both smart and feature phones, **the current number of mobile phone users is 4.78 billion**, which makes **61.04% of people in the world a cell phone owner**. Feature phones are the basic cell phones without apps and complex OS systems, more prominent in developing countries.

Objectives

- Learn the different risks with smartphone messaging apps
- Review methods for capturing data associated apps
- Examine available artifacts associated with messaging apps

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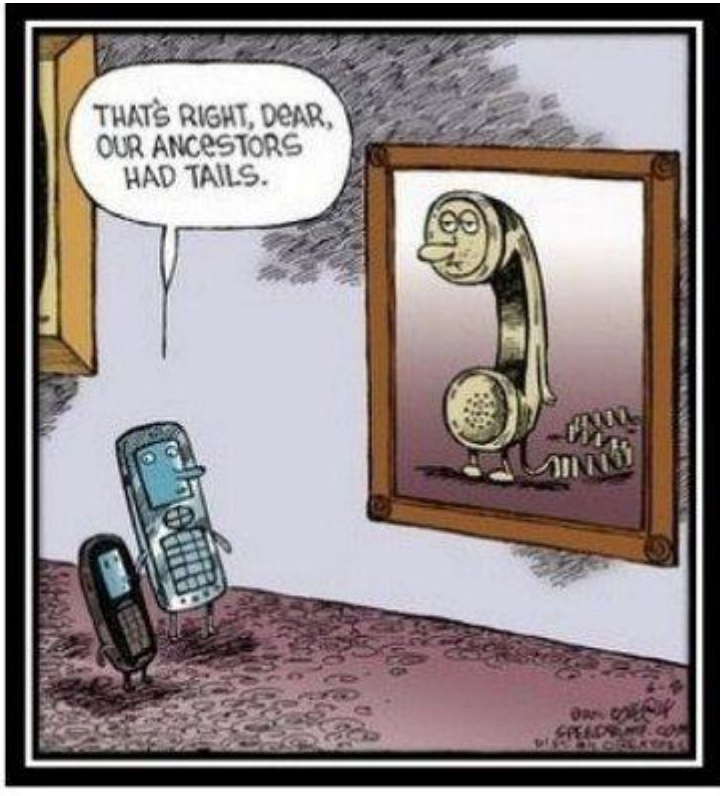
Smartphone Analysis Breakdown

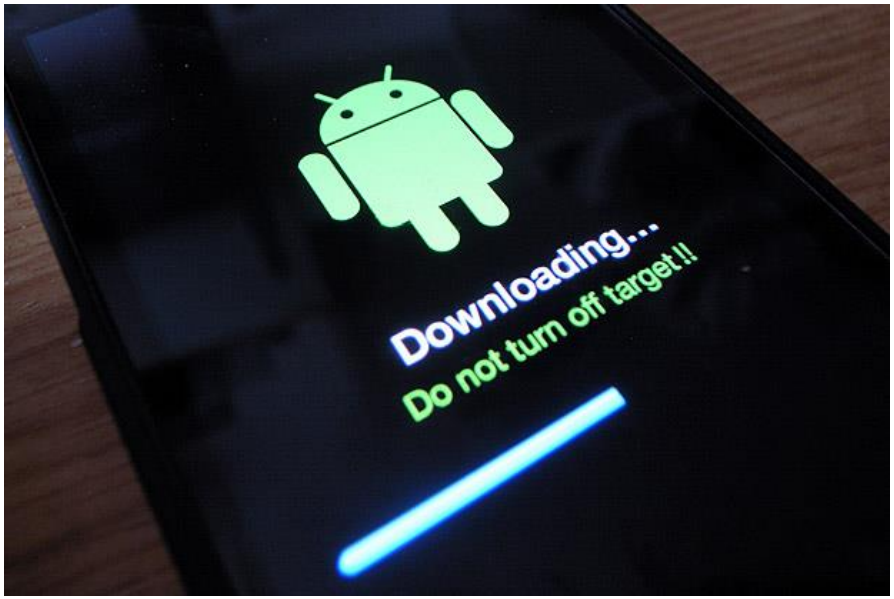
- Smartphone Overview
- Trends with Apps
- Data with Apps
- Security Concerns

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SMARTPHONE OVERVIEW







Firmwares

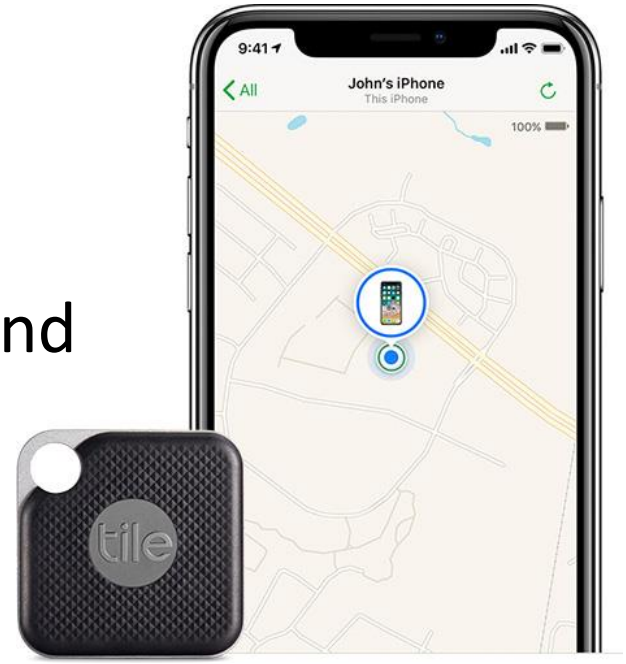
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iPhone Models-Track Cameras



iOS 13

- QUALCOMM Settlement-New Chips 2020
- Undo gestures
- Mail Default Client-Auto Organize
- Collaboration with Apps
- Find My iPhone with Tile-Crowd Find



Marzipan: What you need to know about iOS apps on the Mac

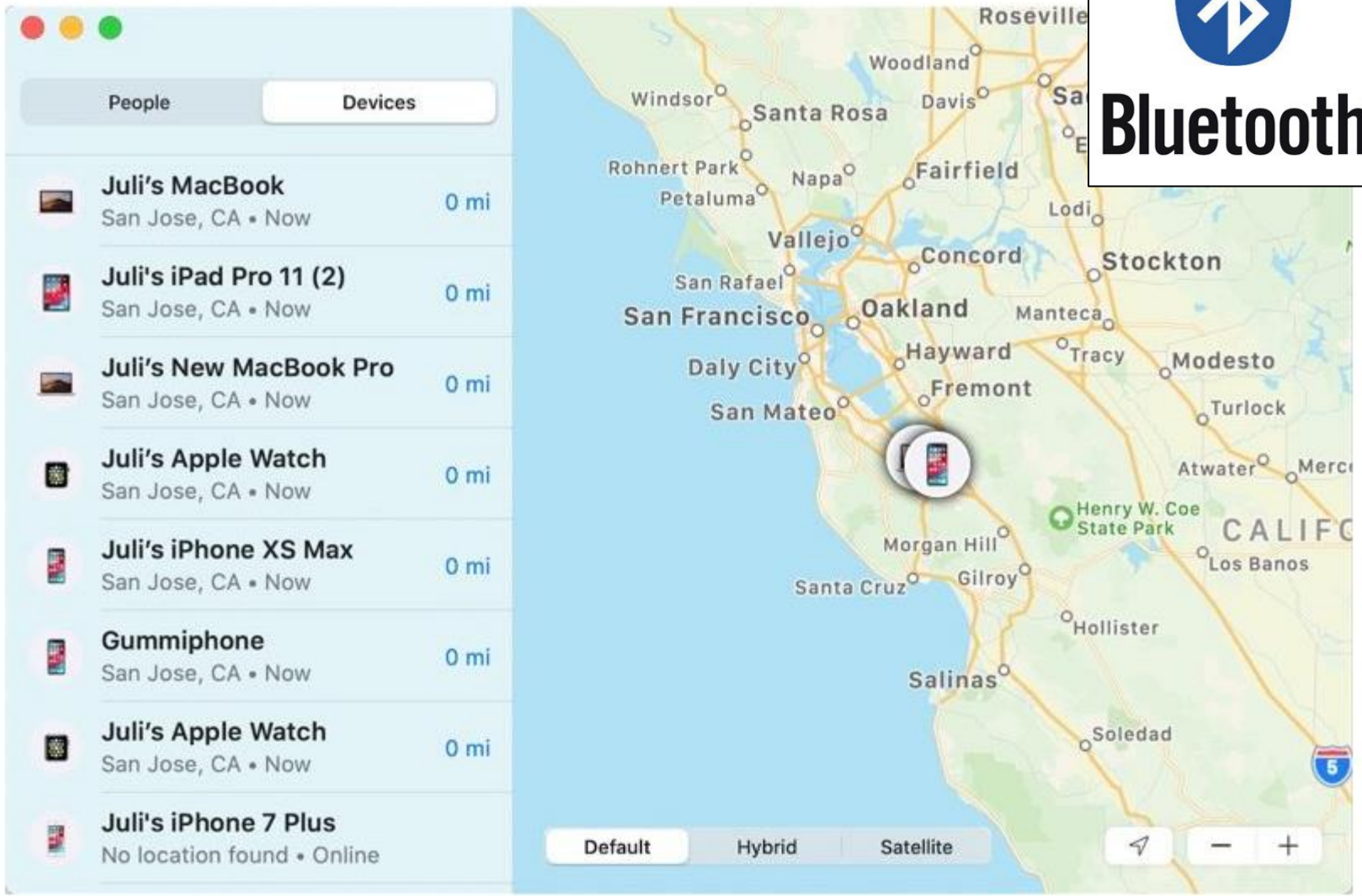
Apple is bringing parts of UIKit to macOS to make it easier to port iOS app to the Mac... but developers won't see it until 2019.

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iOS 13 Issues for Forensics

- 2-factor authentication
- Limiting the location data shared with apps
- Sign in with Apple privacy feature that gives you a convenient and data safe way to sign into apps and websites.
- Apple can even generate single-use randomized email addresses
- Full operation of device via your voice
- Dual SIM Support

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Released Sept 16 2020

iOS 14

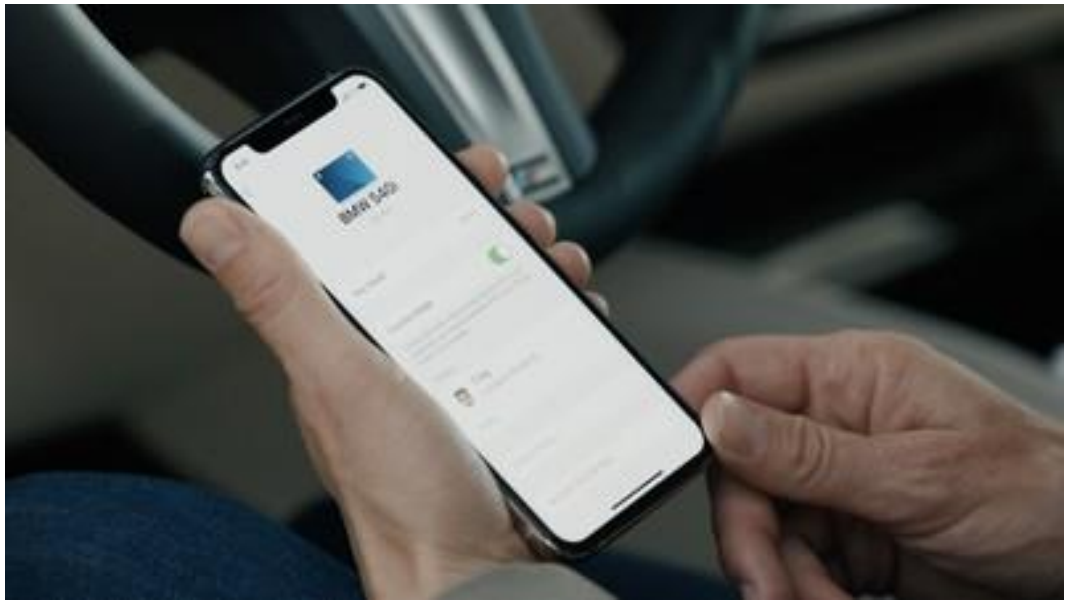
- Picture in Picture View (Facetime and Play)
- Siri graduated and can do more
- Digital Car Keys
  - Car keys can be shared
- On-Device Face Recognition
- Safari Password Monitoring
- App Clips (No need to download)
  - App Clip codes, NFC tags, or QR codes



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Digital Car Key

- Limits on
  - Acceleration
  - Top speed
  - Traction control
  - Stereo volume



- iMessage or iCloud
  - Share Keys

Car must have NFC





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Android Pie 9.x

- Adaptive Apps-AI working with you
- App Time Monitoring & Restriction
- Restrictive Access to Microphone, Camera, Etc.
- Encrypted Backup Option
- Multiple Account Options Enhanced



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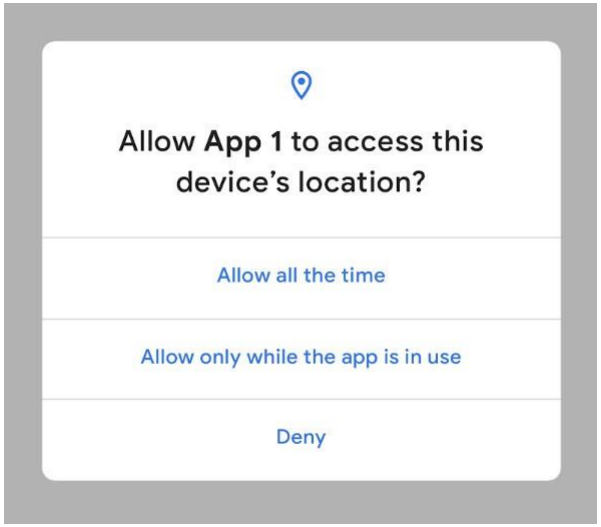
NO MORE DESSERT NAMES

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Android Q 10.x

- App Permissions Restricted
- Built in Screen Recording ☺
- Live captioning
- Security updates pushed with Google Play

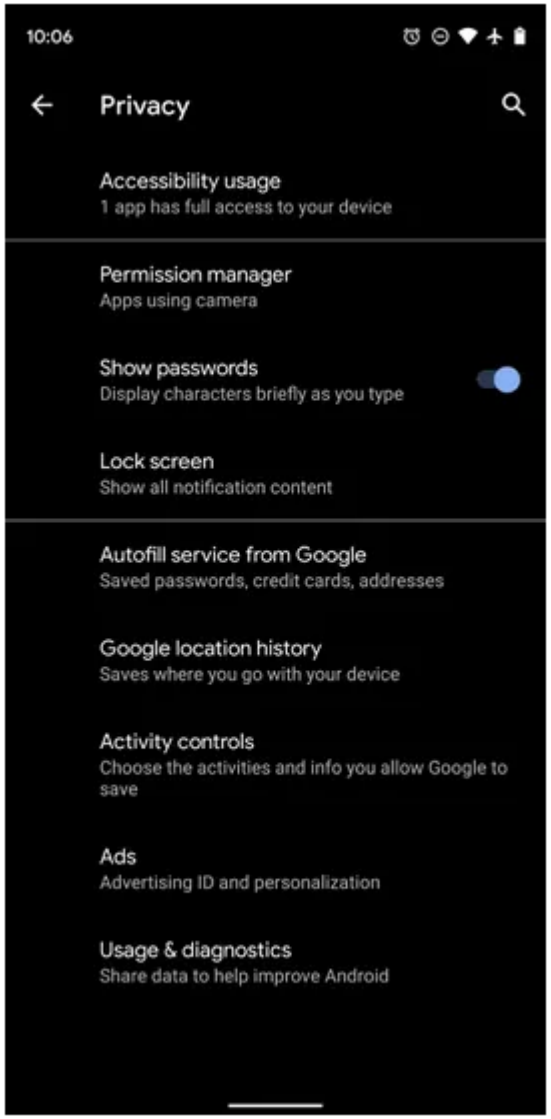


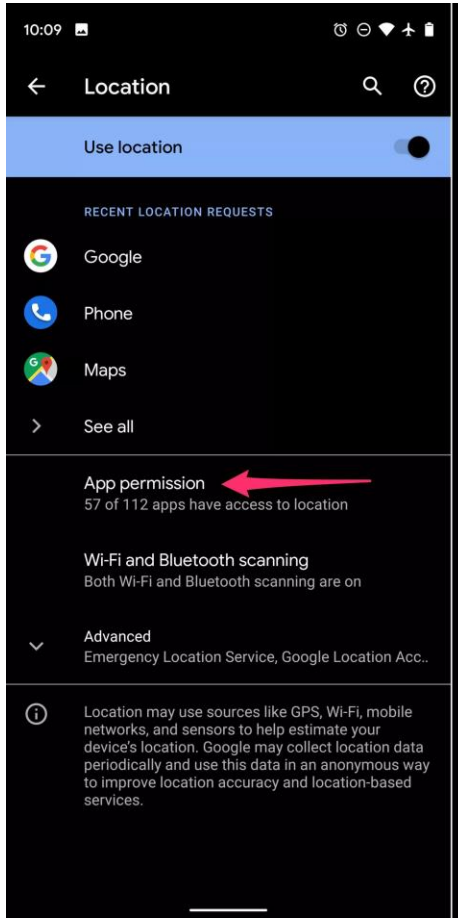
android Go edition

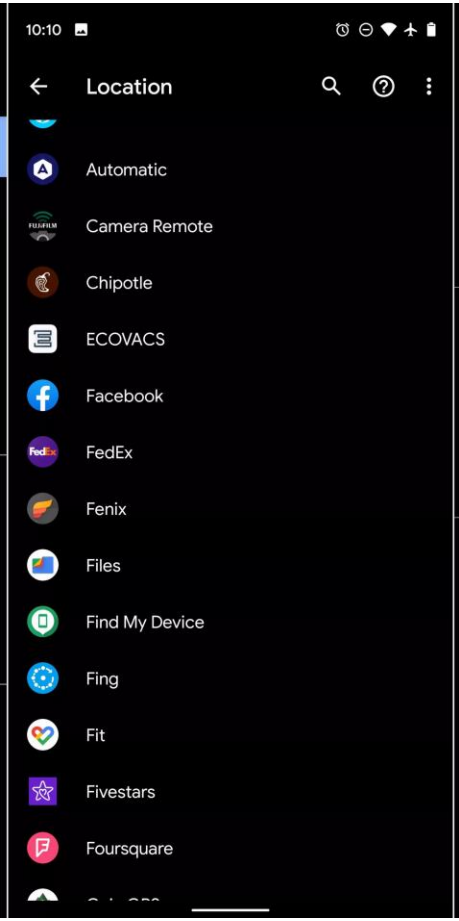
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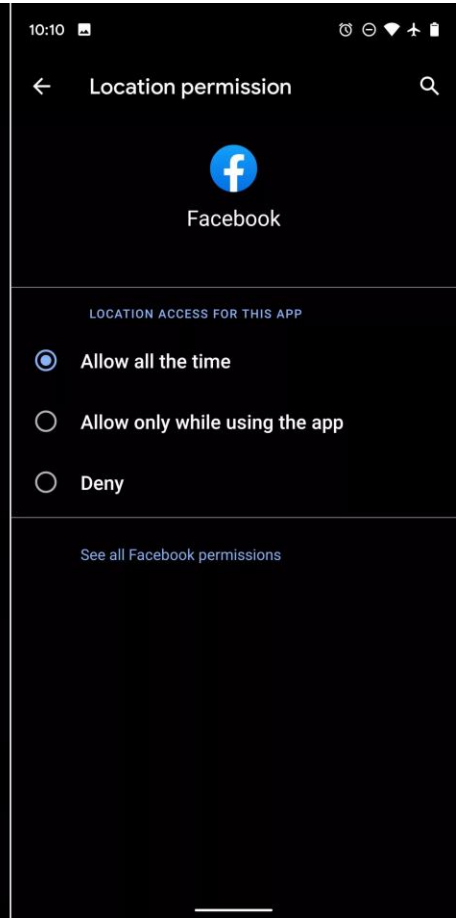
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Privacy with Android 10







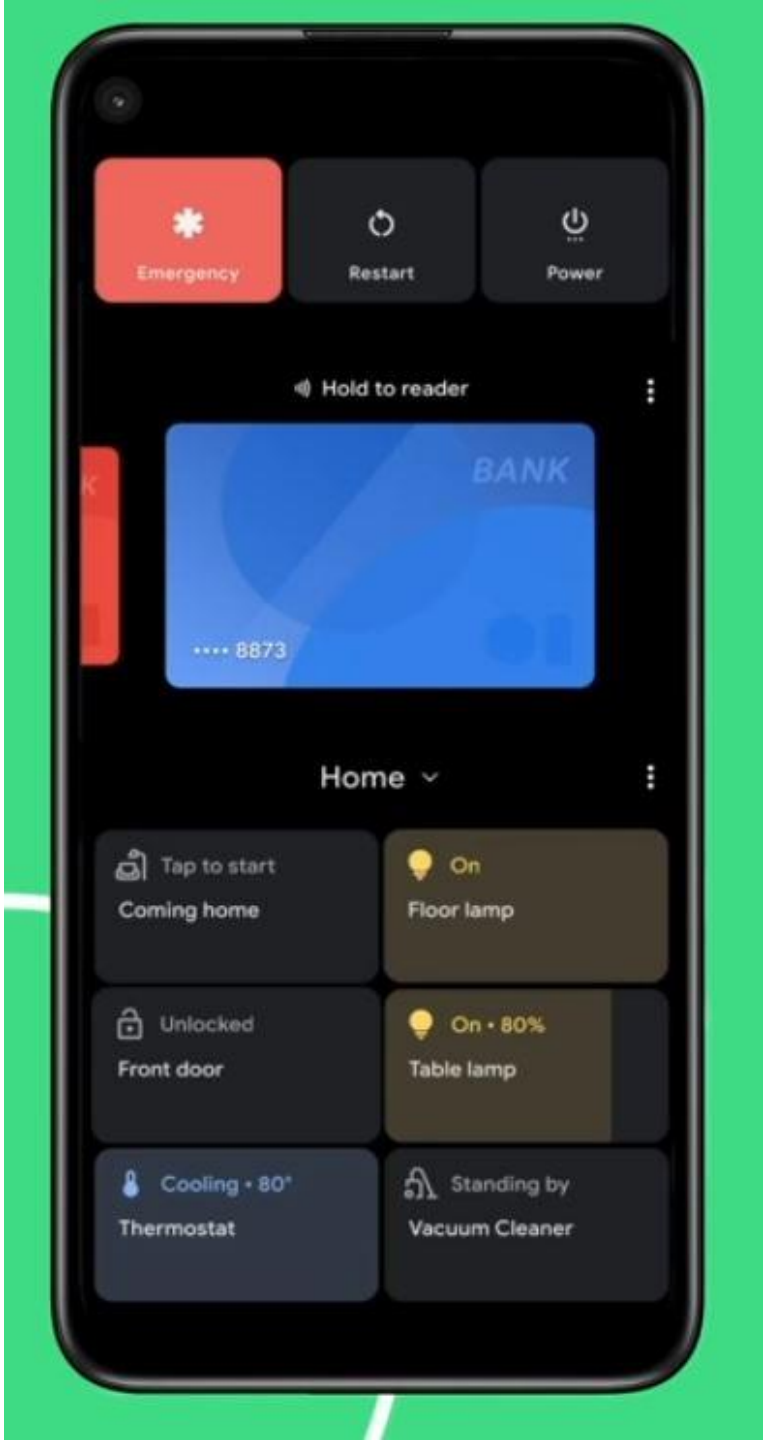


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Android 11

- New Conversations
  - All messages in One Place
- Screen Recording
  - Share with others
- Predictive Answers
  - Smart Reply
- Voice Control
- Enhanced IoT Integration
  - Android Auto Now Wireless



IMAGING A SMARTPHONE



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Where is data located?

Type of Device	On Device Storage	Media Card Storage	SIM Storage	Cloud Storage	Desktop Backup Records
iOS-iPhone	YES	NO	YES	YES	YES
Android	YES	Depends	YES	YES	Depends

Beware Embedded SIMS it affects storage of basics such as SMS

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Imaging Options iOS

- Logical Imaging
- Backup Parsing
  - Standard
  - Encrypted
- iCloud Imaging



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Imaging Options Android

- Logical Imaging
- Backup Imaging
- Rooted Imaging



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Tips for Imaging

- Block Signals!
- Plug in Device
- Load Drivers
- Check Cables





If Windows does NOT see your device your tool cannot see it.

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Processing Check List

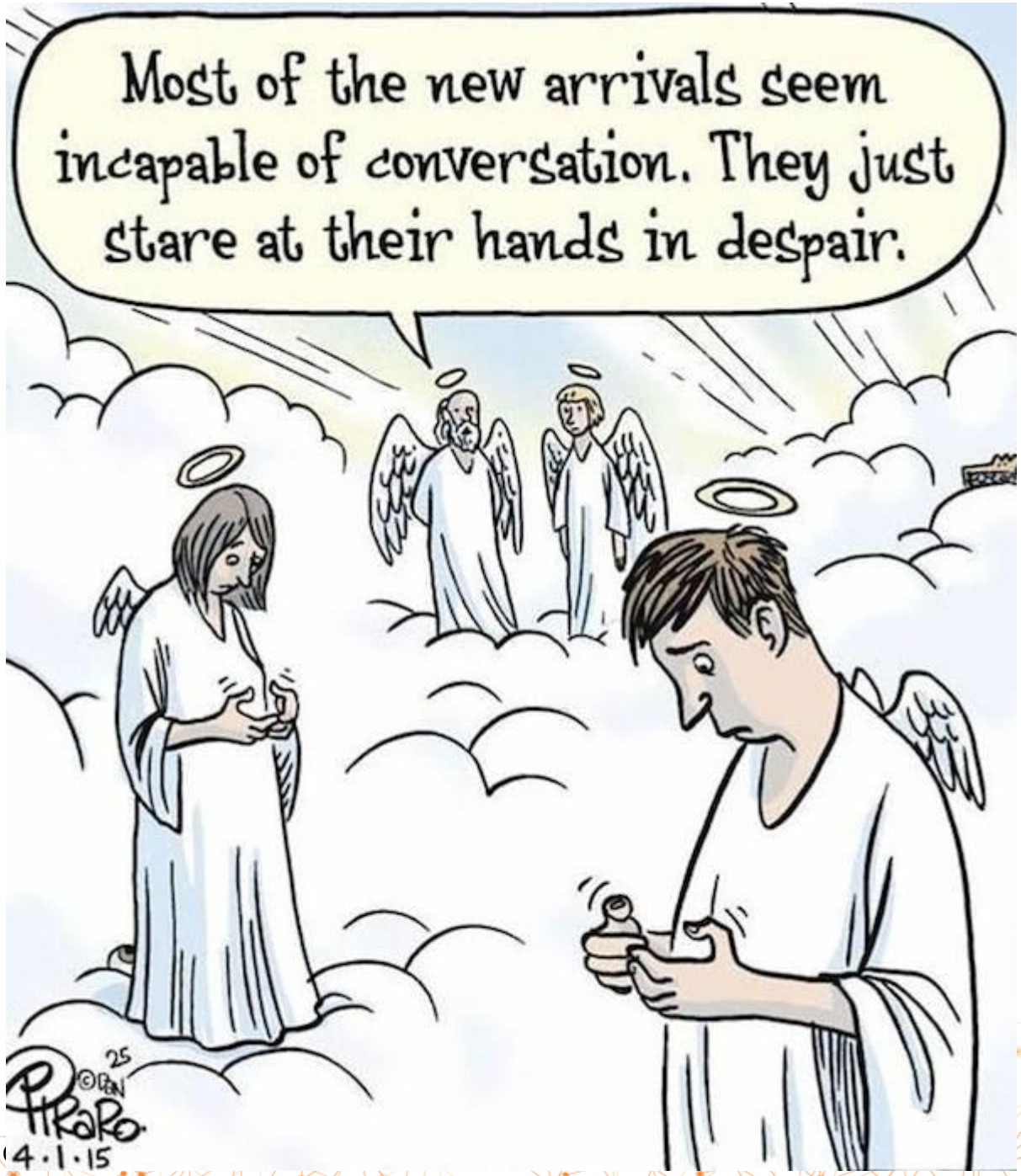


- ✓Logical Acquisitions
- ✓Media Card Acquisition
- ✓SIM Card Acquisition
- ✓Physical Acquisition
- ✓CDR Data if Applicable



- ✓ Logical Acquisitions
- ✓Encrypted Backup Processing
- ✓ SIM Card Acquisition
- ✓ CDR Data if Applicable

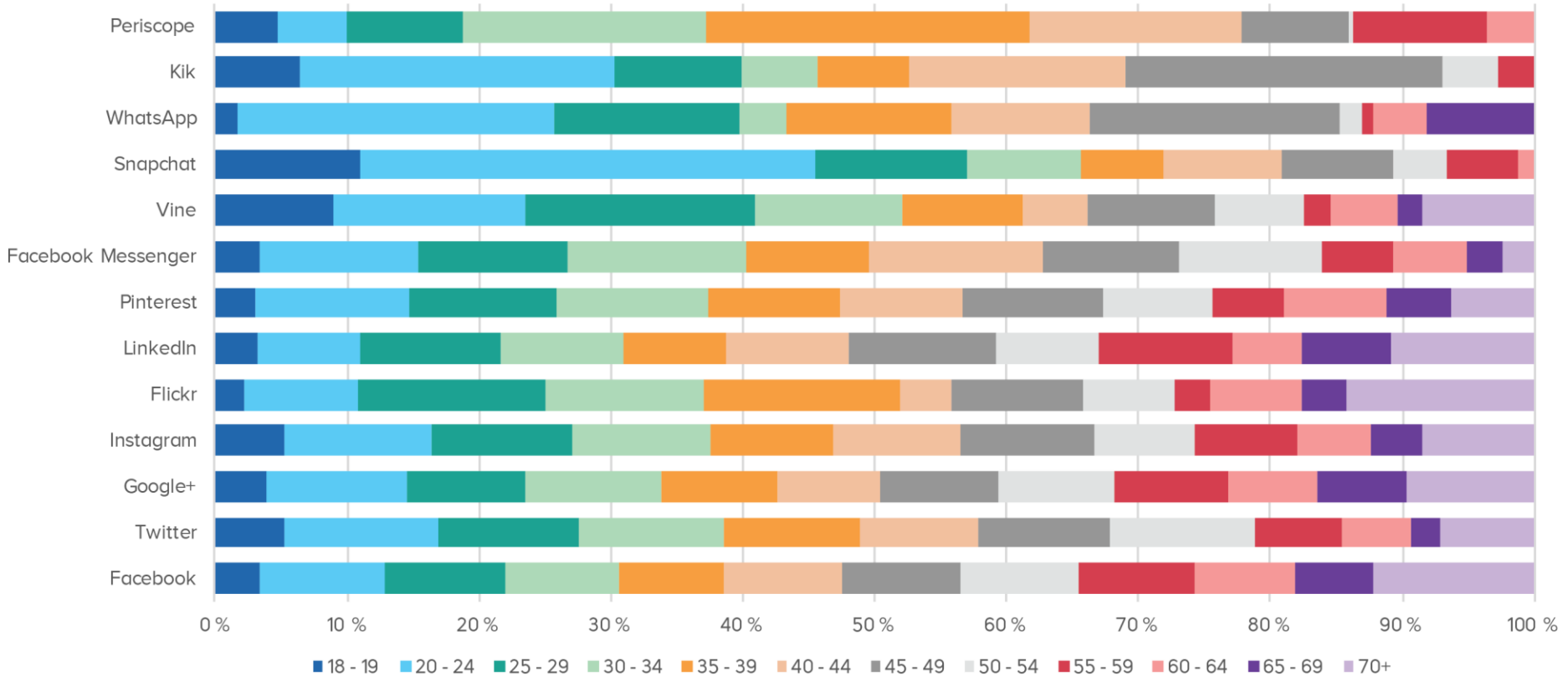
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TRENDS WITH APPS

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Apps are Age Based

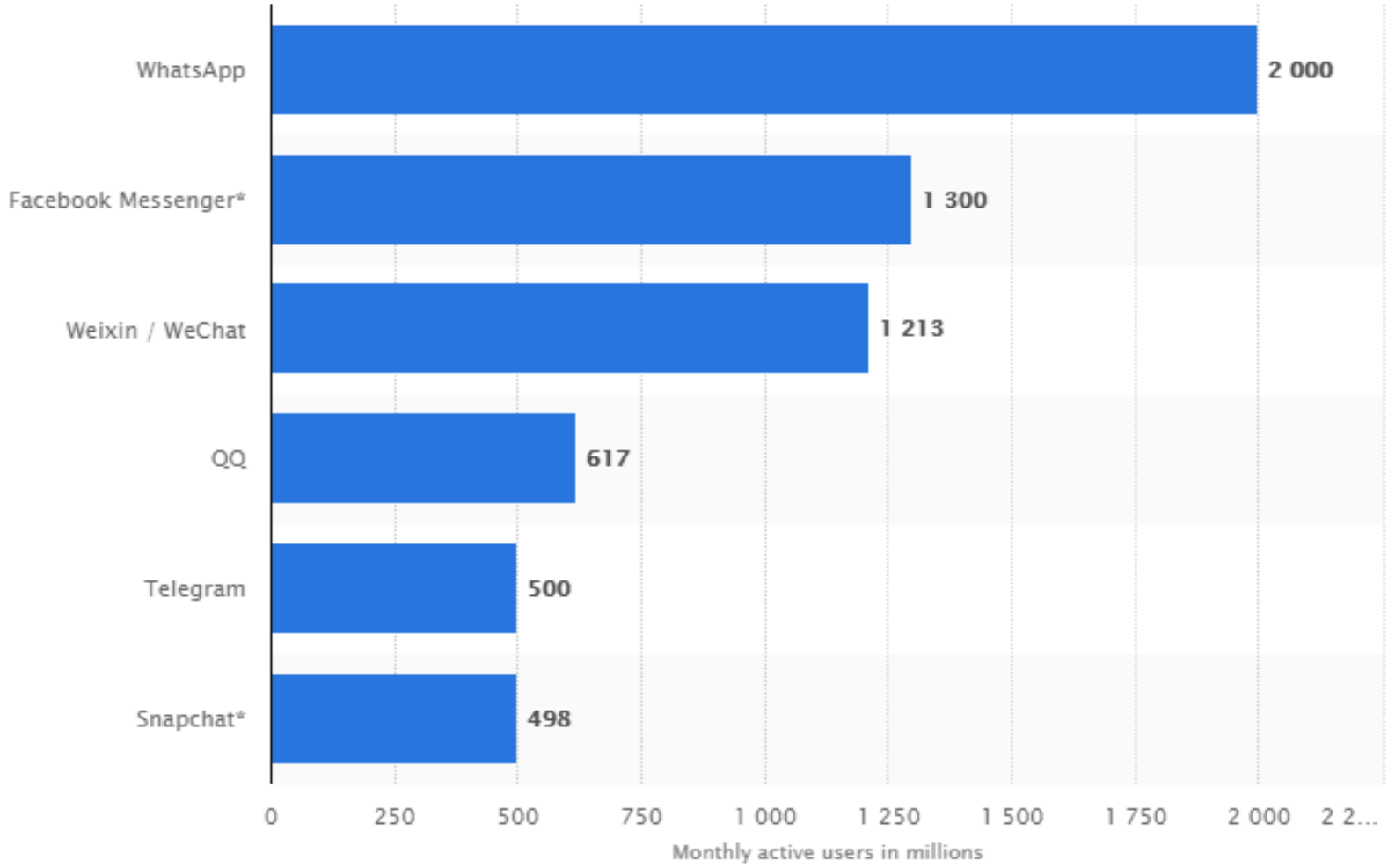


verto analytics

Source: Verto Content Watch™ data, 18+ US adults

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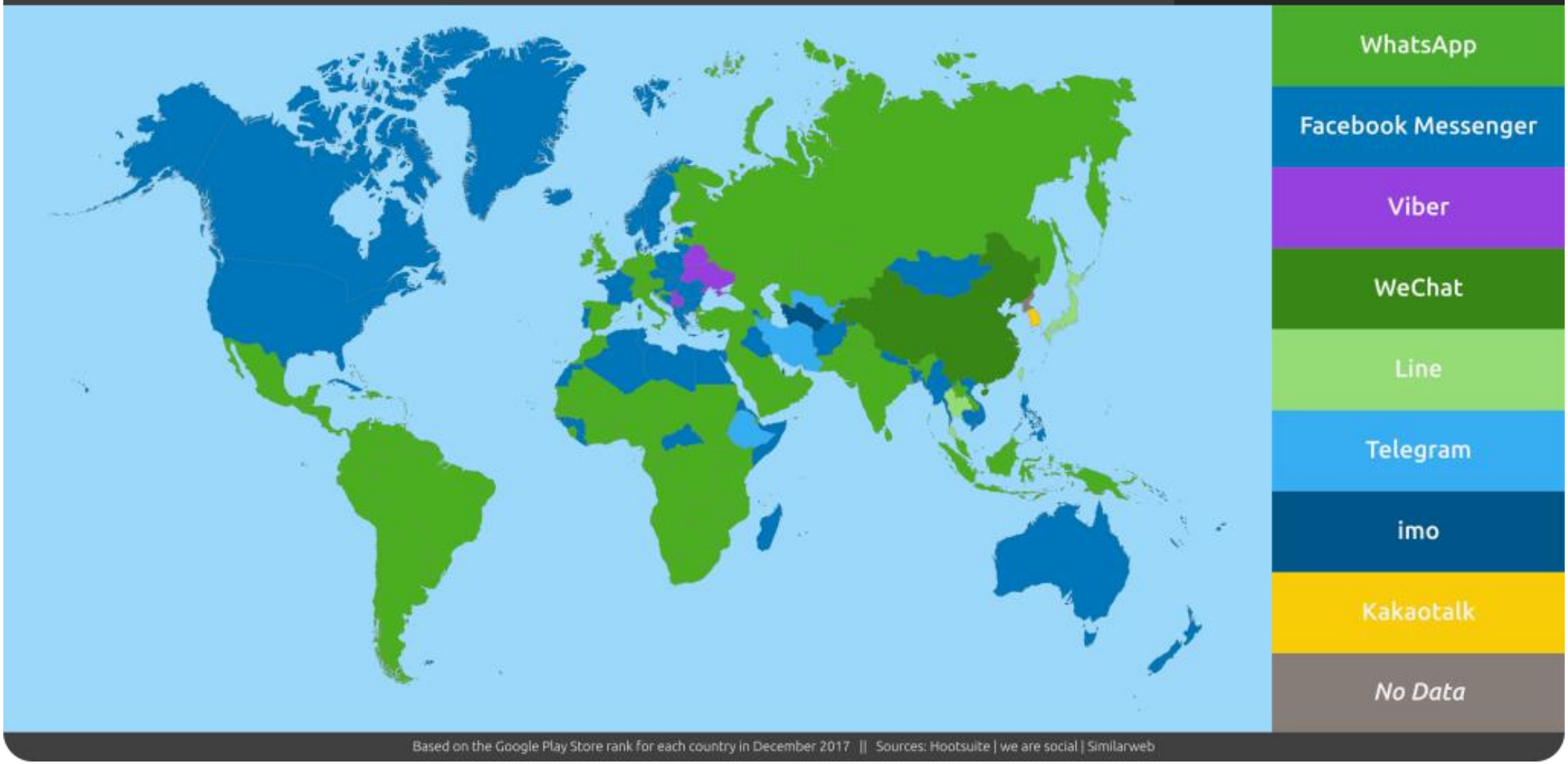
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Additional Information

Show source

Top Messaging Apps by Country

messengerpeople



Based on the Google Play Store rank for each country in December 2017 || Sources: Hootsuite | we are social | Similarweb

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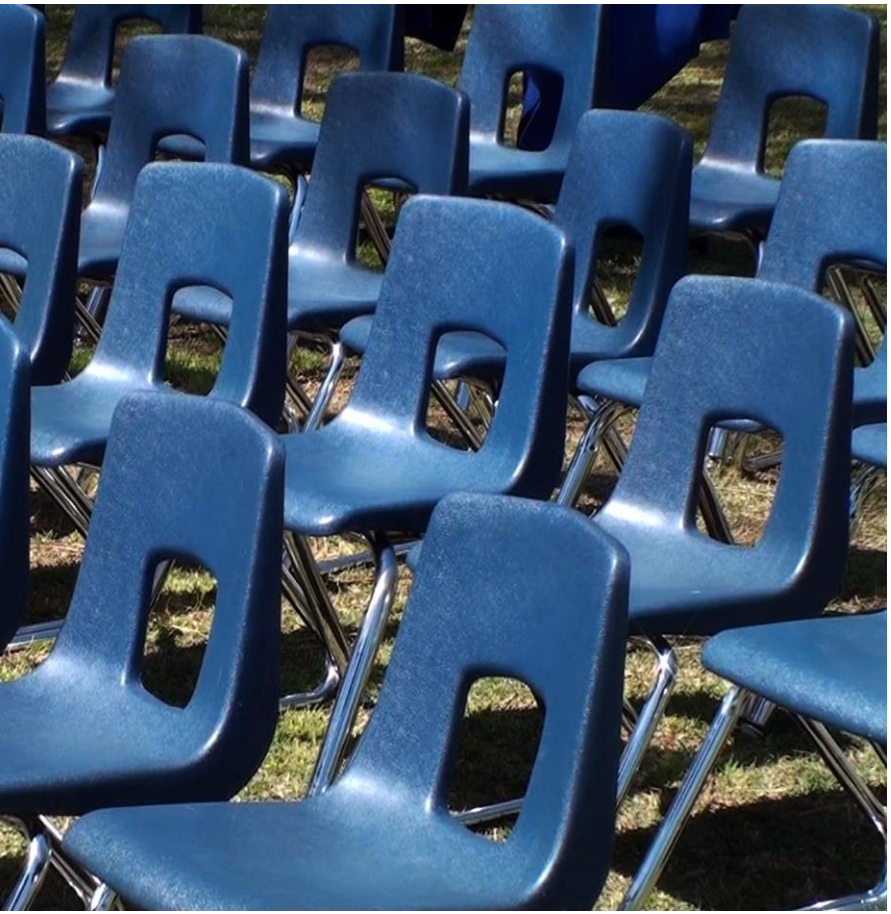


DATA WITH APPS

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Two Ways to Look at Apps

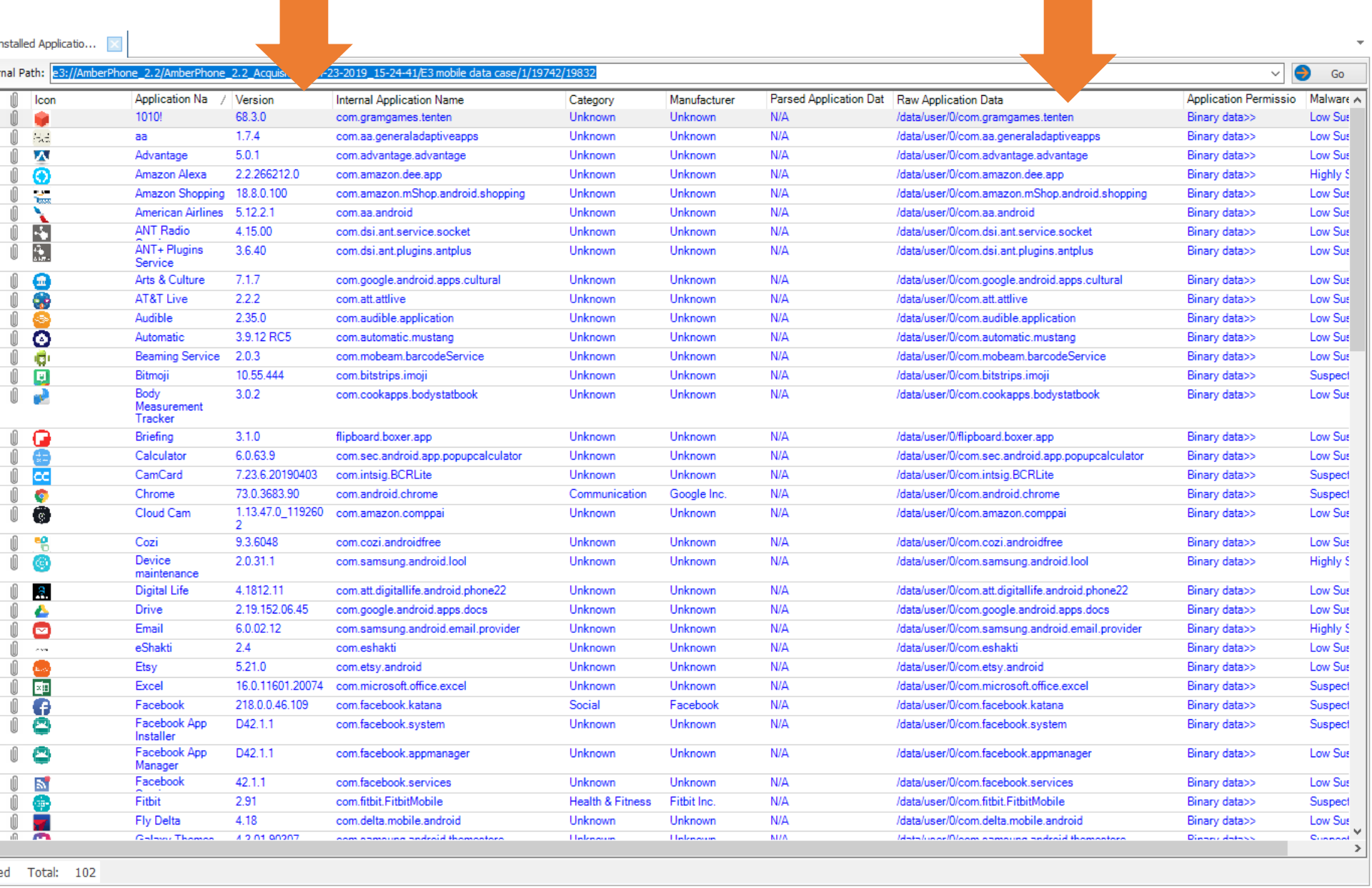
PARSED DATA



UNPARSED DATA



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nstalled Applicatio...

rnal Path: e3://AmberPhone_2.2/AmberPhone_2.2_Acquisi -23-2019_15-24-41/E3 mobile data case/1/19742/19832

Go

Icon	Application Na	Version	Internal Application Name	Category	Manufacturer	Parsed Application Dat	Raw Application Data	Application Permissio	Malware
	1010!	68.3.0	com.gramgames.tenten	Unknown	Unknown	N/A	/data/user/0/com.gramgames.tenten	Binary data>>	Low Sus
	aa	1.7.4	com.aa.generaladaptiveapps	Unknown	Unknown	N/A	/data/user/0/com.aa.generaladaptiveapps	Binary data>>	Low Sus
	Advantage	5.0.1	com.advantage.advantage	Unknown	Unknown	N/A	/data/user/0/com.advantage.advantage	Binary data>>	Low Sus
	Amazon Alexa	2.2.266212.0	com.amazon.dee.app	Unknown	Unknown	N/A	/data/user/0/com.amazon.dee.app	Binary data>>	Highly S
	Amazon Shopping	18.8.0.100	com.amazon.mShop.android.shopping	Unknown	Unknown	N/A	/data/user/0/com.amazon.mShop.android.shopping	Binary data>>	Low Sus
	American Airlines	5.12.2.1	com.aa.android	Unknown	Unknown	N/A	/data/user/0/com.aa.android	Binary data>>	Low Sus
	ANT Radio	4.15.00	com.dsi.ant.service.socket	Unknown	Unknown	N/A	/data/user/0/com.dsi.ant.service.socket	Binary data>>	Low Sus
	ANT+ Plugins Service	3.6.40	com.dsi.ant.plugins.antplus	Unknown	Unknown	N/A	/data/user/0/com.dsi.ant.plugins.antplus	Binary data>>	Low Sus
	Arts & Culture	7.1.7	com.google.android.apps.cultural	Unknown	Unknown	N/A	/data/user/0/com.google.android.apps.cultural	Binary data>>	Low Sus
	AT&T Live	2.2.2	com.att.attlive	Unknown	Unknown	N/A	/data/user/0/com.att.attlive	Binary data>>	Low Sus
	Audible	2.35.0	com.audible.application	Unknown	Unknown	N/A	/data/user/0/com.audible.application	Binary data>>	Low Sus
	Automatic	3.9.12 RC5	com.automatic.mustang	Unknown	Unknown	N/A	/data/user/0/com.automatic.mustang	Binary data>>	Low Sus
	Beaming Service	2.0.3	com.mobeam.barcodeService	Unknown	Unknown	N/A	/data/user/0/com.mobeam.barcodeService	Binary data>>	Low Sus
	Bitmoji	10.55.444	com.bitstrips.imoji	Unknown	Unknown	N/A	/data/user/0/com.bitstrips.imoji	Binary data>>	Suspect
	Body Measurement Tracker	3.0.2	com.cookapps.bodystatbook	Unknown	Unknown	N/A	/data/user/0/com.cookapps.bodystatbook	Binary data>>	Low Sus
	Briefing	3.1.0	flipboard.boxer.app	Unknown	Unknown	N/A	/data/user/0/flipboard.boxer.app	Binary data>>	Low Sus
	Calculator	6.0.63.9	com.sec.android.app.popupcalculator	Unknown	Unknown	N/A	/data/user/0/com.sec.android.app.popupcalculator	Binary data>>	Low Sus
	CamCard	7.23.6.20190403	com.intsig.BCRLite	Unknown	Unknown	N/A	/data/user/0/com.intsig.BCRLite	Binary data>>	Suspect
	Chrome	73.0.3683.90	com.android.chrome	Communication	Google Inc.	N/A	/data/user/0/com.android.chrome	Binary data>>	Suspect
	Cloud Cam	1.13.47.0_1192602	com.amazon.comppai	Unknown	Unknown	N/A	/data/user/0/com.amazon.comppai	Binary data>>	Low Sus
	Cozi	9.3.6048	com.cozi.androidfree	Unknown	Unknown	N/A	/data/user/0/com.cozi.androidfree	Binary data>>	Low Sus
	Device maintenance	2.0.31.1	com.samsung.android.lool	Unknown	Unknown	N/A	/data/user/0/com.samsung.android.lool	Binary data>>	Highly S
	Digital Life	4.1812.11	com.att.digitallife.android.phone22	Unknown	Unknown	N/A	/data/user/0/com.att.digitallife.android.phone22	Binary data>>	Low Sus
	Drive	2.19.152.06.45	com.google.android.apps.docs	Unknown	Unknown	N/A	/data/user/0/com.google.android.apps.docs	Binary data>>	Low Sus
	Email	6.0.02.12	com.samsung.android.email.provider	Unknown	Unknown	N/A	/data/user/0/com.samsung.android.email.provider	Binary data>>	Highly S
	eShakti	2.4	com.eshakti	Unknown	Unknown	N/A	/data/user/0/com.eshakti	Binary data>>	Low Sus
	Etsy	5.21.0	com.etsy.android	Unknown	Unknown	N/A	/data/user/0/com.etsy.android	Binary data>>	Low Sus
	Excel	16.0.11601.20074	com.microsoft.office.excel	Unknown	Unknown	N/A	/data/user/0/com.microsoft.office.excel	Binary data>>	Suspect
	Facebook	218.0.0.46.109	com.facebook.katana	Social	Facebook	N/A	/data/user/0/com.facebook.katana	Binary data>>	Suspect
	Facebook App Installer	D42.1.1	com.facebook.system	Unknown	Unknown	N/A	/data/user/0/com.facebook.system	Binary data>>	Suspect
	Facebook App Manager	D42.1.1	com.facebook.appmanager	Unknown	Unknown	N/A	/data/user/0/com.facebook.appmanager	Binary data>>	Low Sus
	Facebook	42.1.1	com.facebook.services	Unknown	Unknown	N/A	/data/user/0/com.facebook.services	Binary data>>	Low Sus
	Fitbit	2.91	com.fitbit.FitbitMobile	Health & Fitness	Fitbit Inc.	N/A	/data/user/0/com.fitbit.FitbitMobile	Binary data>>	Suspect
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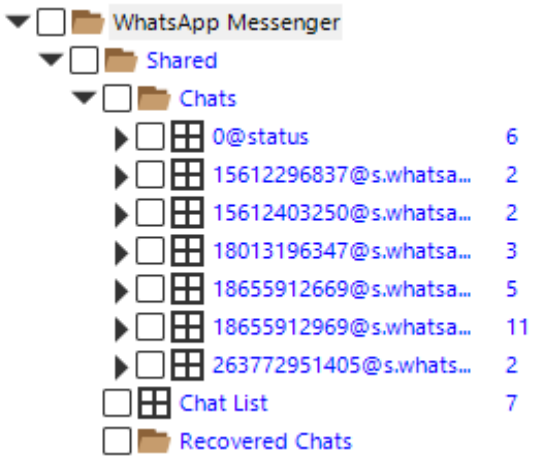
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WhatsApp

- Owned by Facebook
- Users can send text, photos, voice and short video messages to their WhatsApp contacts.
- Supports emojis
- Offers encrypted messaging between users
- Video chat with up to 50 people

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18655912969@s.whatsa...

Internal Path: e3://Emma Jonez.2/Emma_Jonez.2_Acquisition_03-08-2021_13-11-28/E3 data case/1/5244/5245/5263/5264/5266/5272

Time	Sender/Recipient	Direction	Message Type	Text	Action	Media URL
6/25/2019 2:36:23 PM		Incoming	Unknown			
6/25/2019 2:36:23 PM		Incoming	Text	Hi		
6/25/2019 2:36:37 PM		Incoming	Text	🚲		
6/25/2019 2:46:01 PM	Me	Outgoing	Text	Lol boo		
6/25/2019 2:46:20 PM	Me	Outgoing	Audio			https://mmg.w
6/25/2019 2:46:50 PM		Incoming	Audio			https://mmg.w
6/25/2019 2:47:30 PM	Me	Outgoing	Text	Cool		
6/25/2019 2:48:04 PM	Me	Outgoing	Text	K now I need to pull data and see if I can find the voice messages		
6/25/2019 2:48:14 PM		Incoming	Video			https://mmg-fna.whatsapp.n
6/25/2019 2:48:20 PM		Incoming	Audio			https://mmg.w
6/26/2019 10:52:00 AM		Incoming	Text	Let's try and wrap it up soon		

Finished Total: 11



Facebook Messenger

- Owned by Facebook
- Cross chat with Instagram
- GIF Support
- Voice Memos
- Location sharing
- Video chat rooms with up to 50 people

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- Facebook Messenger
  - Conversations
  - Conversation List 4
  - Recovered Data
  - Current User Info 6
  - Contacts 37
  - Stories 10





Contacts

Internal Path: e3://Emma Jonez.2/Emma_Jonez.2_Acquisition_03-08-2021_13-11-28/E3 data case/1/5244/5245/5292/5299

Contact ID	Contact Name	Phone Number	Email Address	Work Company Nam	Work Job Title	Is Messenge
100,001,650,307,244	Markus Blu					Yes
100,002,209,625,669	Redna Ollitsac					Yes
100,002,212,997,485	Back Do					Yes
100,002,265,210,752	Makrem Ben Attia					Yes
100,002,426,427,272	Classics Toys Garage					Yes
100,003,518,704,169	Martin Medina Narcizo					Yes
100,003,706,348,065	Toni Sehat					Yes
100,005,395,333,206	AB DO					Yes
100,007,393,292,380	JL Hazem					Yes
100,007,423,481,278	Ra Mou					Yes
100,008,420,652,891	Kadour Kadour Kadi					Yes
100,009,353,223,853	Ala Zguerguer					Yes
100,010,326,485,092	Rami Ayadi					Yes
100,010,910,229,155	Ramzi Chattaoui					Yes
100,011,218,359,146	Ait Chellala Aymis					Yes
100,011,478,771,073	Àmmar Jl					Yes
100,011,786,910,468	Benito Abbott					Yes
100,012,606,639,259	Josué Polo					Yes
100,013,209,579,520	Lokmane Gohbantini					Yes
100,014,248,357,560	Ąĥmĕd Gĥŏßŏŋ					Yes
100,014,440,157,843	Wahid Ben Salem					Yes





Conversation List

Internal Path: e3://Emma Jonez.2/Emma_Jonez.2_Acquisition_03-08-2021_13-11-28/E3 data case/1/5244/5245/5292/5297

Thread ID	Thread Name	Folder Name	Last Activity Time	Last Message	Is Admin Messag
100,002,265,210,752		inbox	3/1/2021 1:45:05 PM	slm	No
100,017,161,563,464		inbox	5/14/2017 5:15:10 PM	You sent a photo from Tenor GIF Keyboard.	No
100,017,143,175,741		inbox	5/14/2017 5:08:54 PM	Alex sent a photo from GIPHY.	No
17,843,205,149,318,288		inbox	12/31/1969 7:00:00 PM		No

Stories

Internal Path: e3://Emma Jonez.2/Emma_Jonez.2_Acquisition_03-08-2021_13-11-28/E3 data case/1/5244/5245/5292/5300?item=0

Go

Story ID	Time	Author ID	Author Name	Text	Story URL
162,561,822,350,188	3/4/2021 11:51:28 PM	100,057,891,142,380	Manuel Alejandro Moreno Troncoso		https://scontent.xx.fbcdn.net/v/t15.5256-10/fr/cp0/e15/q65/154553272_162561889016848_6404568407491412890_n.jpg?_nc_cat=104&ccb=1-3&_nc_sid=ed1892&_nc_ohc=sy6WDKdivxAAX-x4s2k&_nc_ad=z-m&_nc_cid=0&_nc_ht=scontent.xx&tp=14&oh=ec11733382f9e41e32c158946fb87f7c&oe=6066A244
1,383,427,448,716,534	3/5/2021 8:49:20 AM	100,011,478,771,073	Àmmar Jl		https://scontent.xx.fbcdn.net/v/t15.5256-10/fr/cp0/e15/q65/138903414_4025892154099070_5547209845806358200_n.jpg?_nc_cat=107&ccb=1-3&_nc_sid=08861d&_nc_ohc=jzPRQr5ti4EAX-gjCj9&_nc_oc=AQkZnvR02H4Z2qCogpitg3YCPGbpFltQmAILx8U8zEtCr2OaoA1lyRM4BQAxQjZoTB4&_nc_ad=z-m&_nc_cid=0&_nc_ht=scontent.xx&tp=14&oh=c9b657a365d09cf8673957100d578992&oe=60681740
1,383,487,528,710,526	3/5/2021 10:19:50 AM	100,011,478,771,073	Àmmar Jl		https://scontent.xx.fbcdn.net/v/t1.0-9/fr/cp0/e15/q65/157247883_1383487468710532_8376908724527022651_n.jpg?_nc_cat=104&ccb=1-3&_nc_sid=711f92&_nc_ohc=BXYSUL--69wAX9NqLX1&_nc_ad=z-m&_nc_cid=0&_nc_ht=scontent.xx&tp=14&oh=3d27bb676bbbe35bd2cf93928399e9ce&oe=606A131D
3,907,339,892,664,316	3/5/2021 11:55:01 AM	100,001,650,307,244	Markus Blu		https://scontent.xx.fbcdn.net/v/t1.0-9/cp0/e15/q65/p843x403/157117529_3907339779330994_3376575528159151148_o.jpg?_nc_cat=109&ccb=1-3&_nc_sid=711f92&_nc_ohc=P4uwksMxgjsAX-8Chav&_nc_ad=z-m&_nc_cid=0&_nc_ht=scontent.xx&tp=3&oh=a6afb05fee8d293fac8ae6cd07f8a0e3&oe=60692EB4
3,907,342,129,330,759	3/5/2021 11:56:15 AM	100,001,650,307,244	Markus Blu		https://scontent.xx.fbcdn.net/v/t1.0-9/fr/cp0/e15/q65/157068669_3907341572664148_8705995702441182770_o.jpg?_nc_cat=102&ccb=1-3&_nc_sid=711f92&_nc_ohc=FjDSBGuxFjoAX_-ll6l&_nc_ad=z-m&_nc_cid=0&_nc_ht=scontent.xx&tp=14&oh=4f061508aaf56fc1c58



Settings

- General
- Security and Login
- Your Facebook Information
- Privacy
- Face Recognition
- Profile and Tagging
- Public Posts
- Blocking
- Location
- Language and Region
- Stories
- Journalist Resources

Your Facebook Information

You can view or download your information and delete your account at any time.

Access Your Information	View your information by category.	View
Transfer a Copy of Your Photos or Videos	Transfer your photos or videos to another service.	View
Download Your Information	Download a copy of your information to keep, or to transfer to another service.	View
Activity Log	View and manage your information and some settings.	View
Off-Facebook Activity	View or clear activity from businesses and organizations you visit off of Facebook.	View
Managing Your Information	Learn more about how you can manage your information.	View
Deactivation and Deletion	Temporarily deactivate or permanently delete your Account.	View

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Your Information | Deselect All

- **Posts**
  Posts you've shared on Facebook, posts that are hidden from your timeline and polls you have created
- **Photos and Videos**
  Photos and videos you've uploaded and shared
- **Comments**
  Comments you've posted on your own posts, on other people's posts or in groups you belong to
- **Likes and Reactions**
  Posts, comments and Pages you've liked or reacted to
- **Friends**
  The people you are connected to on Facebook
- **Stories**
  Photos and videos you've shared to your story
- **Following and Followers**
  People, organizations or business you choose to see content from, and people who follow you
- **Messages**
  Messages you've exchanged with other people on Messenger
- **Groups**
  Groups you belong to, groups you manage and your posts and comments within the groups you belong to



Viber

- Uses your phone number for Account
- Synchronizes with your contacts
- App can send text, stickers and emoticons, photos, voice and video messages for free to other Viber users.
- Viber Out allows you to call outside App numbers
- Self destruct option for messages in one-on-one chats

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- Viber
  - Current User Info 6
  - Conversations
  - Conversation List 6
  - Calls 5
  - Contacts 11
  - Locations 2

Locations

Internal Path: e3://Emma Jonez.2/Emma_Jonez.2_Acquisition_03-08-2021_13-11-28/E3 data case/1/5244/5245/5246/5256

Time	Location IDs	Coordinates	Accuracy	Conversation
12/15/2020 1:21:51 PM	1	40.7691018,-73.96878	0	
	3	0.0,0.0	0	



Calls

Internal Path: e3://Emma Jonez.2/Emma_Jonez.2_Acquisition_03-08-2021_13-11-28/E3 data case/1/5244/5245/5246/5255

Time	Participant IDs	Participants	Call Duration (sec	Call Type	Is Video Call	Conversation
1/4/2021 11:36:32 AM			0	Outgoing	No	
1/6/2021 12:29:04 PM	13		0	Outgoing	No	Navigate to data
1/6/2021 12:29:04 PM	13		0	Outgoing	No	Navigate to data
1/6/2021 12:30:06 PM	13		0	Outgoing	No	Navigate to data
1/6/2021 12:31:00 PM	13		0	Missed	No	Navigate to data



Alisha Cales

Internal Path: e3://Emma Jonez.2/Emma_Jonez.2_Acquisition_03-08-2021_13-11-28/E3 data case/1/5244/5245/5246/5248/5249

Time	Sender Name	Sender ID	Text Preview
12/29/2020 9:33:42 AM	Drgnsdth		Boo hope you had a very merry Xmas
12/29/2020 9:33:59 AM	Alisha Cales	13	I did!
12/29/2020 9:34:05 AM	Alisha Cales	13	Hope you did too
12/29/2020 9:35:55 AM	Drgnsdth		
12/29/2020 9:36:49 AM	Drgnsdth		We did and ty doing smoked ribs and pork belly in a couple days for New Years
12/29/2020 9:37:14 AM	Alisha Cales	13	Aw kitty! I used to have a calico cat named Mariah growing up
12/29/2020 9:38:16 AM	Alisha Cales	13	She lived to be 18 and hated me! ☹
12/29/2020 9:38:51 AM	Drgnsdth		Her name solars and she is so love able she adopted us lol
12/29/2020 9:39:40 AM	Alisha Cales	13	Ours only liked my dad, tolerated my mom to get fed, and hated everyone else lol
12/29/2020 9:39:49 AM	Drgnsdth		Lol
12/29/2020 9:40:49 AM	Drgnsdth		I guess we are lucky she loves my wife and kitty Luna
12/29/2020 9:41:25 AM	Drgnsdth		They like to play nascar through the house
12/29/2020 9:42:41 AM	Alisha Cales	13	Ha!
12/29/2020 9:43:50 AM	Drgnsdth		The bbq pit
12/29/2020 9:49:35 AM	Drgnsdth		Ty Alisha I think I have what we need
12/29/2020 10:05:23 A	Alisha Cales	13	Yw and nice set up

WeChat



- 1 Billion Users
- Free mobile instant messaging, video and voice calls, group chat, and multimedia messaging (images, video, audio, stickers, etc).
- Up to 500 people can take part in chats
- Time Capsule feature gives you the ability to create video messages that disappear after a day.
- Unique features include (Find people to chat with)
  - Friend Radar
  - People Nearby
  - Shake
- Supported on Android Wearables

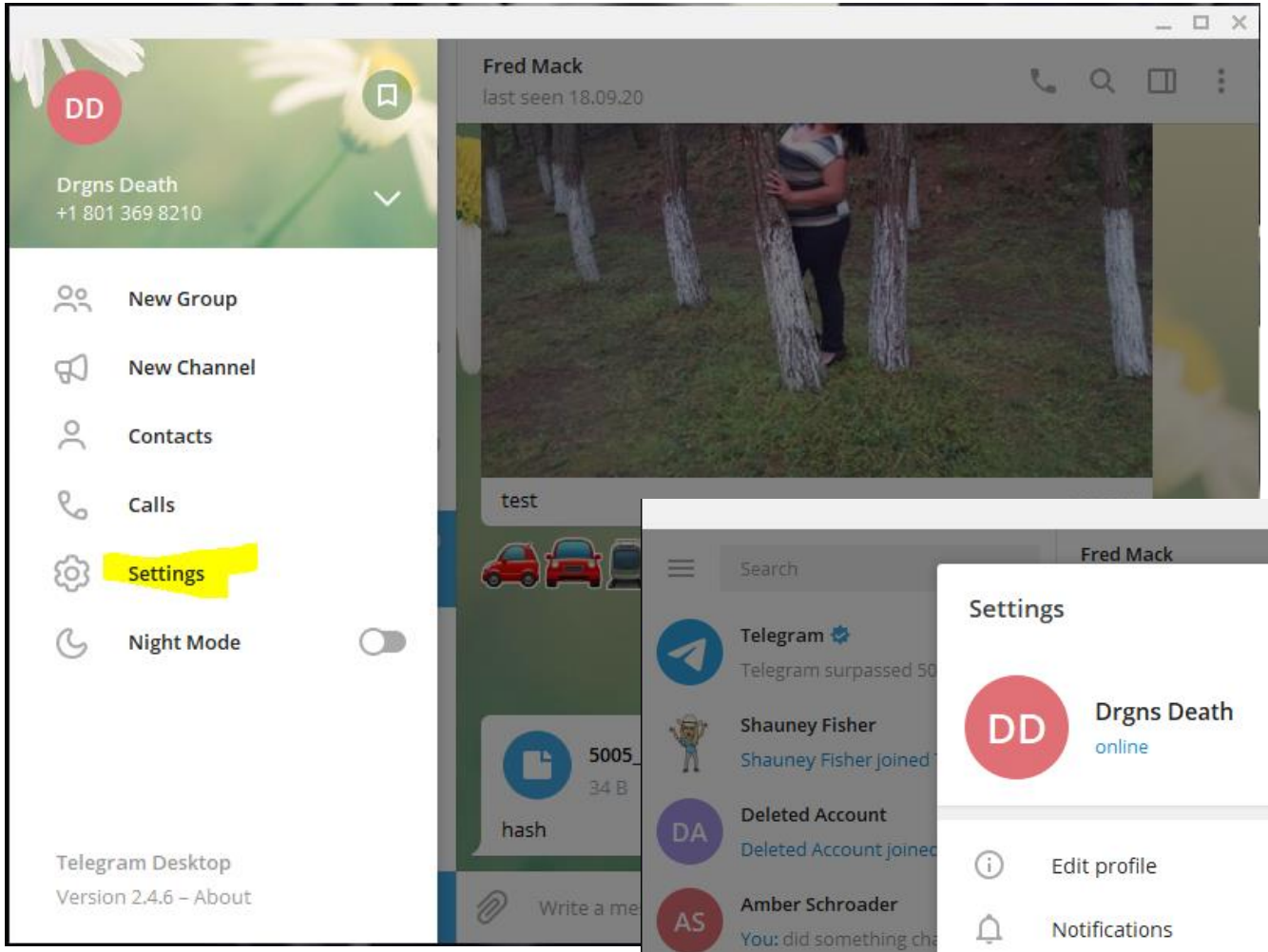
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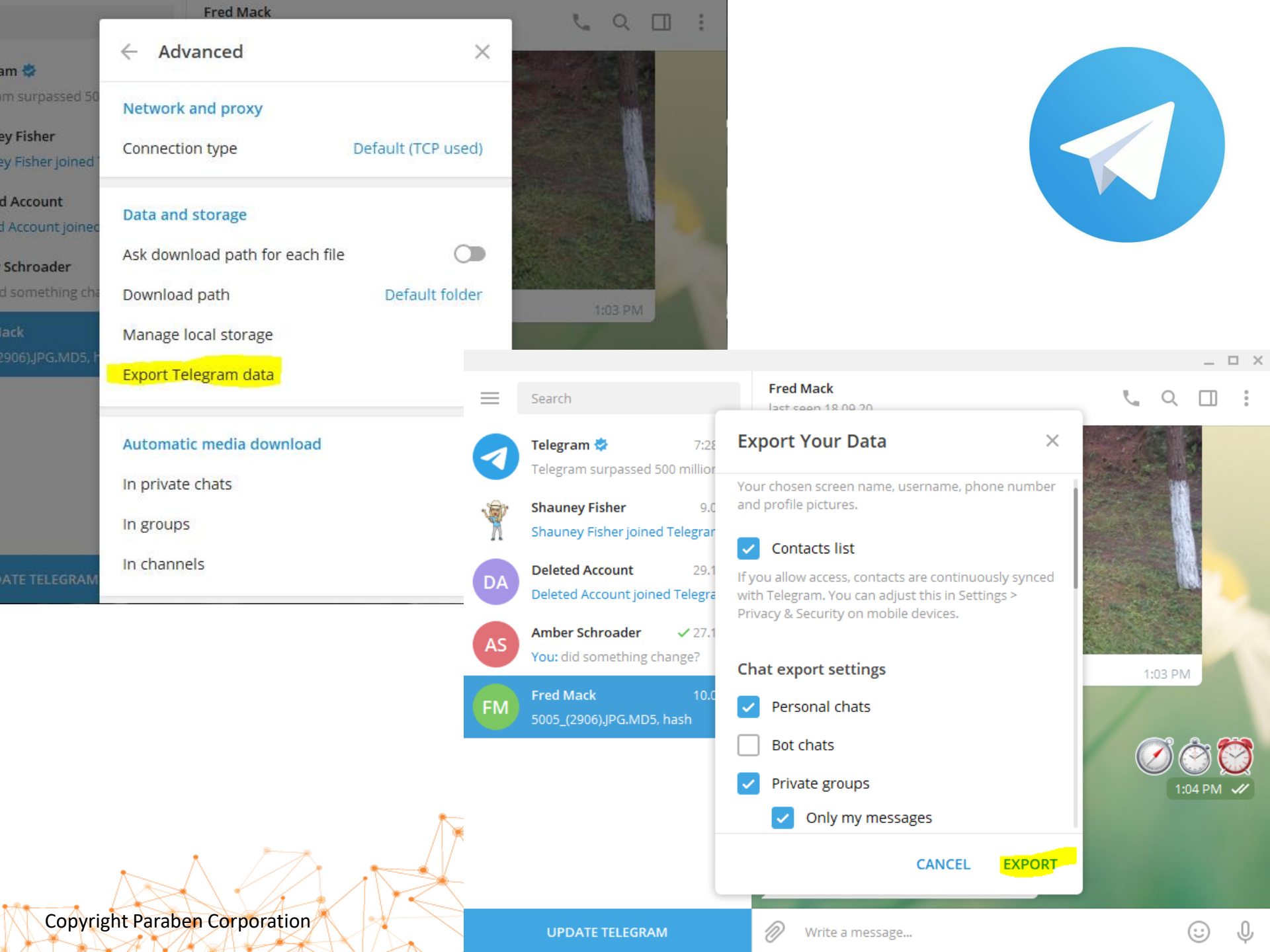
Telegram

- Desktop or Mobile App
- Mobile App has limited data
- Planned as a secure messaging system
- Features encrypted chat messaging, with client-server encryption for standard chats.
- A Secure Chat mode provides end-to-end encryption.
- You can set messages to self-destruct.
- You can share videos, documents and participate in group chats of up to 200 users.

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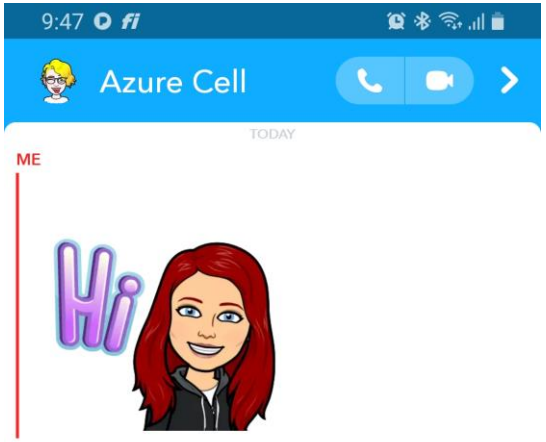
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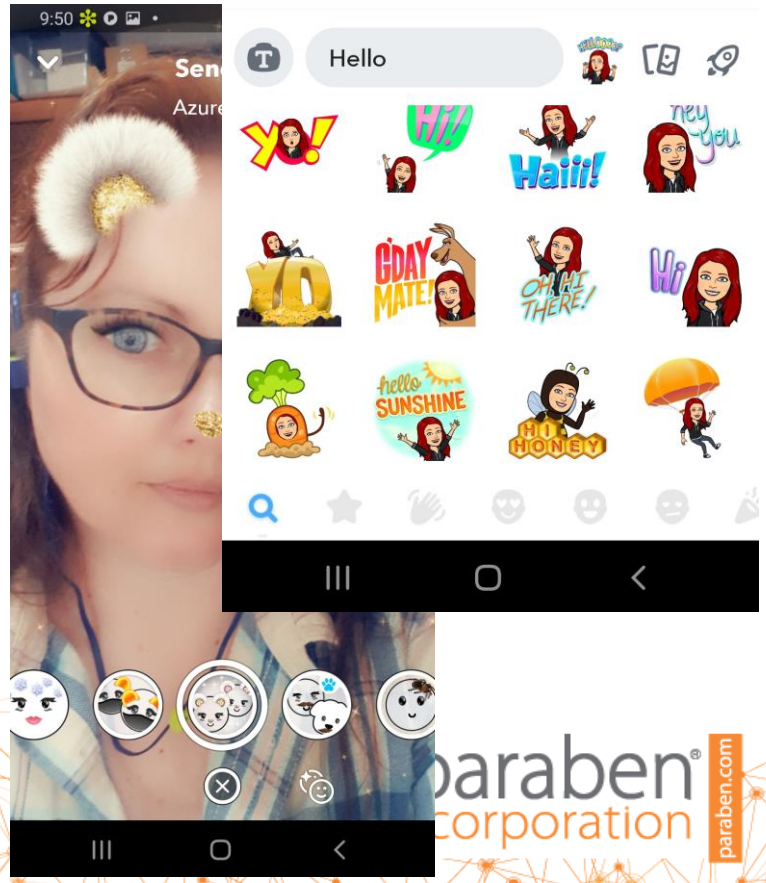


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SnapChat

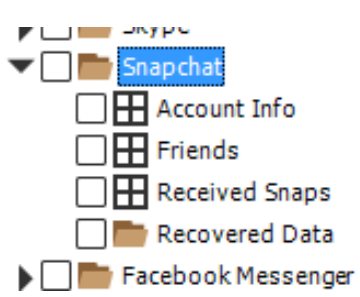
- Popular among younger chatters
- Data is only visible for a short period of time
- Known for funny filters
- Shares stories and has a lot of options for shares.
- Compatible with Bitmoji



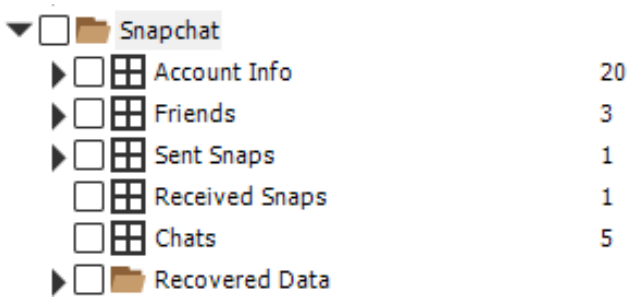


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Snapchat Data







Friends

Internal Path: e3://Case (4)/Android-Apps-2.4/E3 mobile data case/1/10965/10979/11014/11016 Go

Username	Display Name	Phone	Birthday	Is Friend	Is Best Friend	Is Blocked	Is Ignored
larrypet312	Larry Peterson			Yes	No	No	No
teamsnapchat	Team Snapchat			Yes	No	No	No

Received Snaps

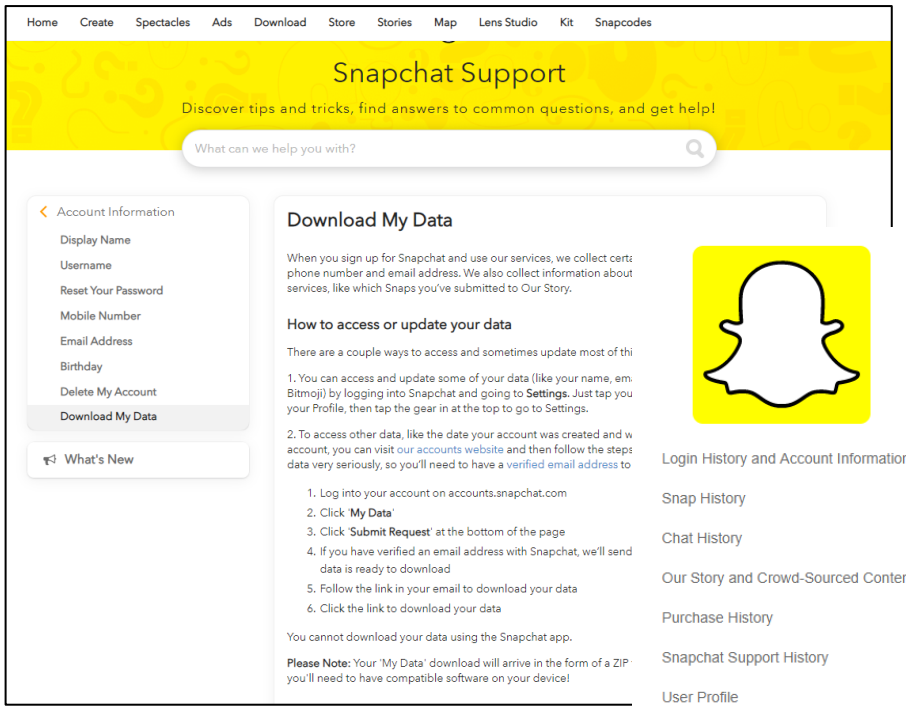
Internal Path: e3://Case (4)/Android-Apps-2.4/E3 mobile data case/1/10965/10979/11014/11017 Go

Time	Sender	Status	Display Time (sec	Date Viewed	Broadcast Media URL
	teamsnapchat	Loaded and not viewed	7		https://storage.googleapis.com/br p4
	teamsnapchat	Loaded and not viewed	5		https://storage.googleapis.com/br p4
	teamsnapchat	Loaded and not viewed	9		https://storage.googleapis.com/br p4
	teamsnapchat	Not viewed and not loaded	5		https://storage.googleapis.com/br p4
	teamsnapchat	Not viewed and not loaded	7		https://storage.googleapis.com/br p4
	teamsnapchat	Not viewed and not loaded	6		https://storage.googleapis.com/br p4
	teamsnapchat	Not viewed and not loaded	11		https://storage.googleapis.com/br p4

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Snapchat



Login History and Account Information

Snap History

Chat History

Our Story and Crowd-Sourced Content

Purchase History

Snapchat Support History

User Profile

Friends

Ranking

Account History

Location History

Search History

Terms History

Subscriptions

Bitmoji

In-app Surveys

Reported Content

Bitmoji Kit

Connected Apps

Login History and Account Information

This section includes your basic account information, like your username, the date you created your account, device information, device history (the different devices you've used to login to Snapchat), an overview of the Terms you've accepted, and a history of when you logged in.

Basic Information

Username:	
Name:	
Creation Date:	2017-08-25 23:34:44 UTC

Device Information

Make:	Samsung
Model ID:	SM-G960N
Model Name:	Galaxy S9
User Agent:	Snapchat/10.60.5.0 (SM-G960N; Android 9#G960NKSU1CSE3#28; gzip) V/MUSHROOM
Language:	en
OS Type:	ANDROID
OS Version:	Android 9
Connection Type:	WIFI

Device History

Make: Samsung
Model: SM-G960N
Start Time: 2019-07-08 21:00:00 UTC
Device Type: PHONE

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SECURITY CONCERNS

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App Stores



- Not for source review
- Not all are created equal

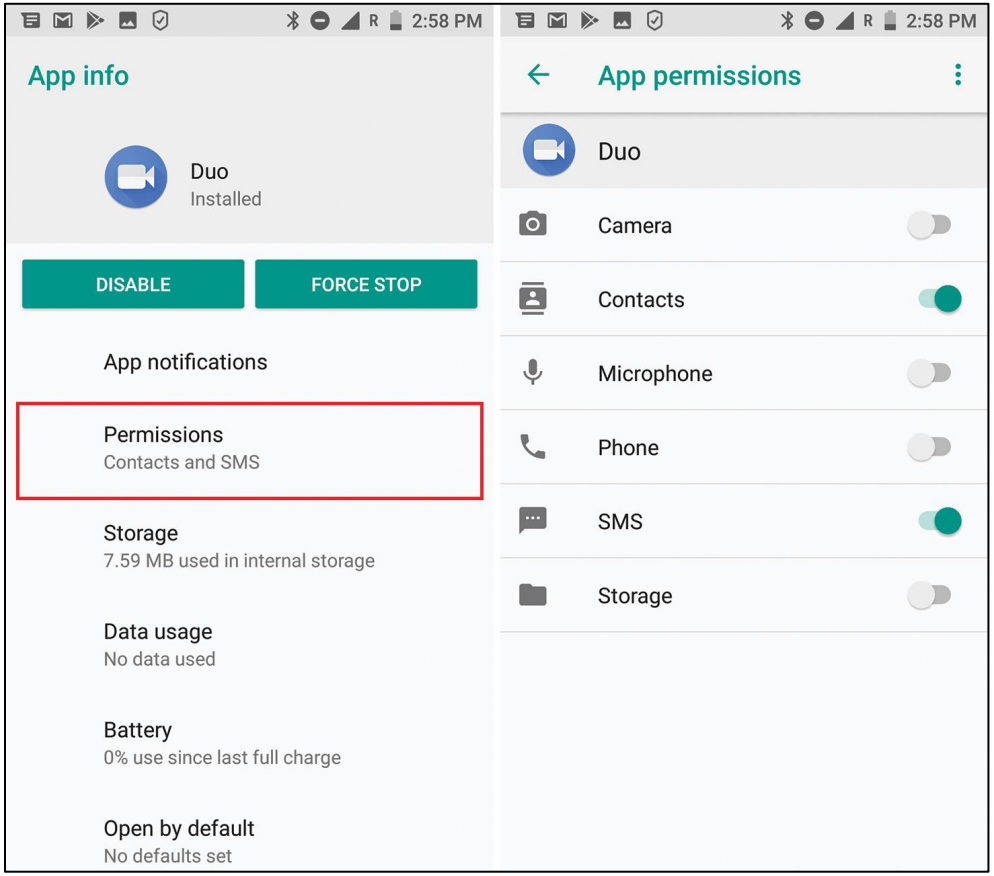
nook Slide me soc.io MOBANGO MOBILE POWER TURKCELL

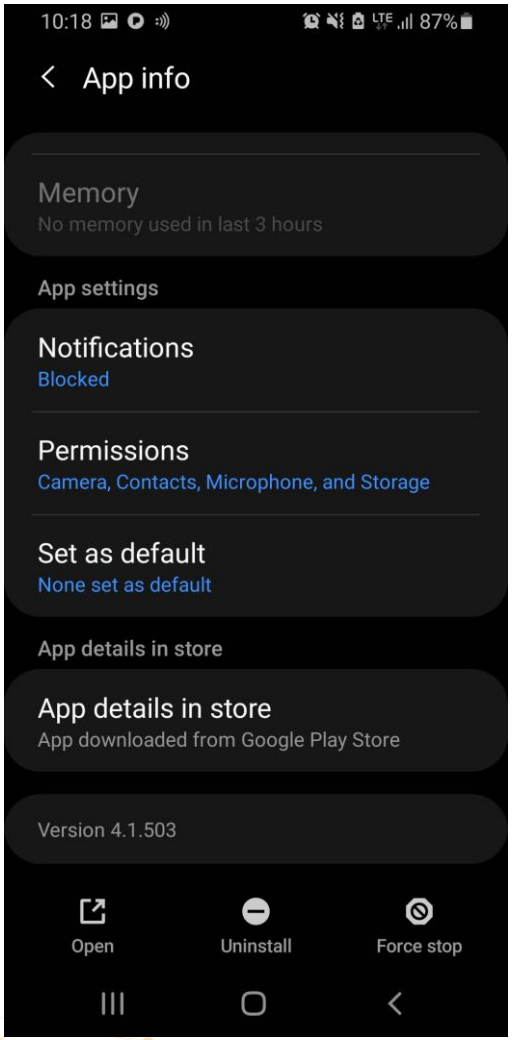
amazon Samsung Apps OPERA software Yandex.Store КИЇВСТАР

STC Baidu 图标 ChangYou cnet LG smartWorld™

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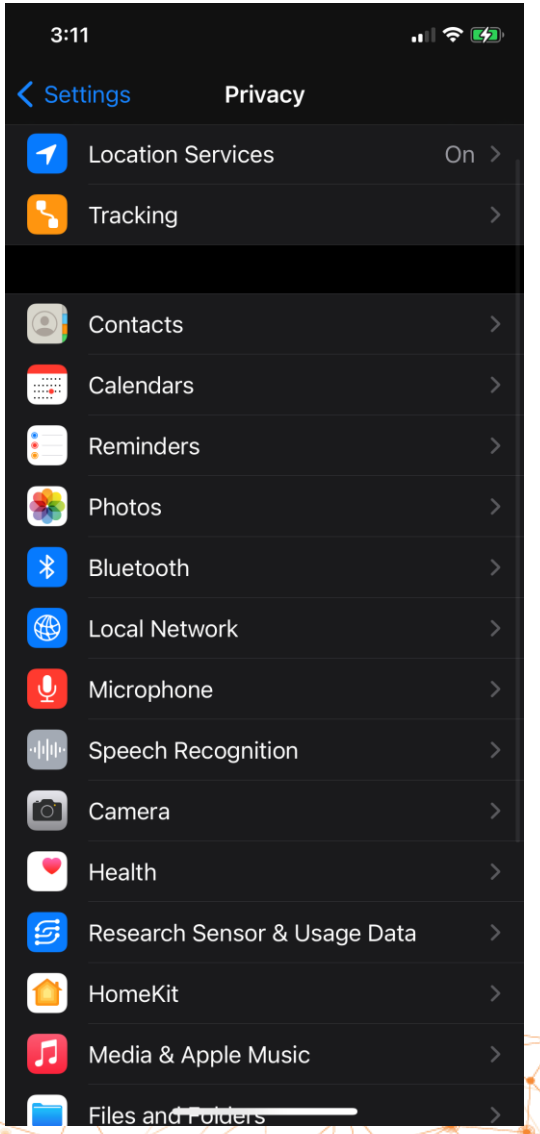


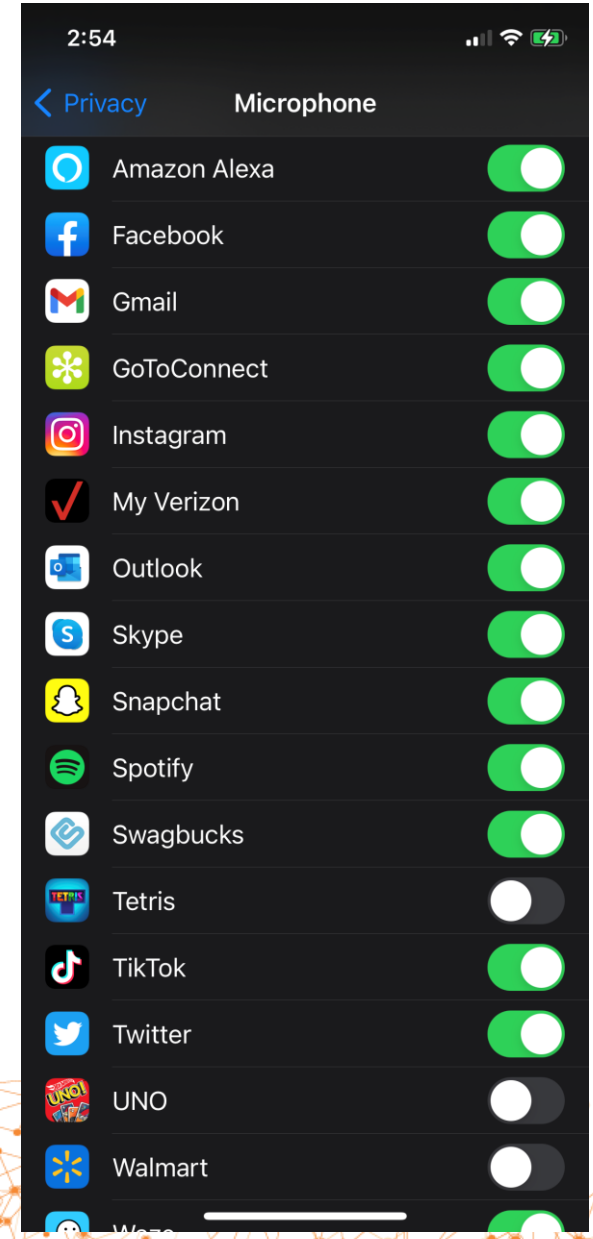


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Privacy Manager iOS





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Signal

Millions of people around the world, **many Hongkongers among them, are considering dropping the encrypted messaging platform WhatsApp** and switching instead to alternatives they believe offer better data and privacy protection following the announcement of changes to the way the app shares information with its parent company, Facebook.

- Open Whisper Systems private messaging
- RedPhone and TextSecure calling
- End-to-end military grade encryption
- You can send text, voice, group messages, media and attachments.
- Open source with regularly audited encryption

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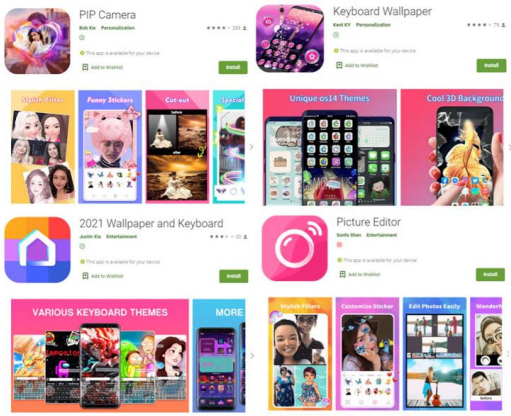


Over 750,000 Users Downloaded New Billing Fraud Apps From Google Play Store

April 20, 2021 Ravie Lakshmanan

Researchers have uncovered a new set of fraudulent Android apps in the Google Play store that were found to hijack SM...

- 700,000+ Downloads
- Billing Fraud Scheme







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Any Questions?





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