

iOS Third-Party Apps Forensics

REFERENCE GUIDE

The aim of this poster is to provide a list of the most interesting files and folders “Data” and in the “Shared” folders for the most commonly used third-party apps.

DFPS iOS-APPS-v11_03-21

This poster was created by Mattia Epifani (@mattiaep) with support of the SANS DFIR Faculty. ©2021 Mattia Epifani. All Rights Reserved.

Business/Productivity

APPSSTORE URL: <https://apps.apple.com/us/app/doodle-easy-scheduling/id938182547>

`/private/var/mobile/Containers/Data/Application/<APP_GUID>`

Internal App Path	File Name	File Type
<code>/Documents/</code>	<code>doodle.ypdb</code>	SQLite
<code>/Library/Caches(com.doodle.Doodle-App)/fsCachedData/</code>	<code>*</code>	Various
<code>/Library/Preferences/</code>	<code>com.doodle.Doodle-App.plist</code>	Plist


The image shows the Dropbox logo, which consists of a blue rounded square containing a white geometric pattern of four diamonds. Below the logo, the word "Dropbox" is written in a bold, black, sans-serif font.

Dropbox

APPSSTORE URL: <https://apps.apple.com/us/app/dropbox-backup-sync-share/id327630330>

/private/var/mobile/Containers/Data/Application/<APP_GUID>	File Name	File Type
Internal App Path		
/Documents/	spotlight.db	SQLite
/Documents/Users/<User_ID>/	Dropbox.sqlite	SQLite
/Documents/Users/<User_ID>/	metadata.db	SQLite
/Documents/Users/<User_ID>/	offline.db	SQLite
/Documents/Users/<User_ID>/	recent_actions_local.db	SQLite
/Documents/Users/<User_ID>/	recent_actions_server.db	SQLite
/Documents/Users/<User_ID>/	stared_infos_local.db	SQLite
/Library/Caches/Users/<User_ID>/FileCache/Loaded/	*	Various
/Library/Preferences/	com.getdropbox.Dropbox.plist	Plist
/private/var/mobile/Containers/Shared/AppGroup/<APP_GUID>	File Name	File Type
Internal App Path		
/File Provider Storage/<User_ID>/local-storage/	*	Various
/Library/Preferences/	group.com.getdropbox.Dropbox.plist	Plist
/Users/<User_ID>/	Dropbox.sqlite	SQLite
/Users/<User_ID>/	file_provider_metadata_with_assistant.db	SQLite
/Users/<User_ID>/	upload_queue_v2.db	SQLite
/Users/<User_ID>/FileCache/	*	Various

REFERENCES:
<https://abrignoni.blogspot.com/2018/12/profiling-user-activity-in-dropbox-fo.html>
<https://www.marshall.edu/forensics/files/Televem-Dropbox-Final-PDF.pdf>
<https://arxiv.orgftp/archive/papers/1709/1709.10395.pdf>
<https://link.springer.com/article/10.1007/s11277-020-03255-5>
<https://www.landfonline.com/doi/abs/10.1080/00450618.2015.1110620?scroll=top&needAccess=true&journalCode=cj20>



Dust

APPSSTORE URL: <https://apps.apple.com/us/developer/radical-app-llc/id1004070836>

```

/private/var/mobile/Containers/Data/Application/<APP_GUID>

```

Internal App Path	File Name	File Type
/Documents/	<User_ID>	Realm
/Documents/	contacts.json	JSON
/Documents/	default.realm	Realm
/Library/Preferences/	com.mentionmobile.cyberdust.plist	Plist
/SplashBoard/Snapshots/	*	KTX

REFERENCES:

<https://www.mm3c.org/docs/research/dust.pdf>

Eventbrite

APPSSTORE URL: <https://apps.apple.com/us/app/eventbrite/id48792291>

[private/var/mobile/Containers/data/Application/<APP_GUID>


Internal App Path	File Name	File Type
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/Documents/	default.realm	Realm
-------------	---------------	-------

/Library/Caches/com.eventbrite.attendee.com.alamofire.	*	JPG
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imagedownload/fsCachedData/		
-----------------------------	--	--

/Library/Preferences/	com.eventbrite.attendee.plist	Plist
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Gmail

APPSSTORE URL: <https://apps.apple.com/us/app/gmail-email-by-google/id52689480>


Internal App Path	File Name	File Type
/Library/Preferences/	com.google.gmail.plist	Plist
/Library/Caches/com.google.common.SSO/<User_ID>/	Profile.plist	Plist
/Documents/drivekit/users/<User_ID>/gls-cello/	cello.db	SQLite
/Library/Application Support/data/<Email_Address>/	sqllitedb	SQLite

APPSSTORE URL: <https://apps.apple.com/us/app/google-drive/id600791720>



APPSSTORE URL: <https://apps.apple.com/us/app/google-drive/id50784739>

<code>[private]var/mobile/Containers/Data/Application/<APP_GUID></code>		
Internal App Path	File Name	File Type
<code>/Documents/<User_ID>/</code>	<code>comments_snapshot<User_ID>.db</code>	SQLite
<code>/Documents/drivekit/users/<User_ID>/cello/</code>	<code>cello.db</code>	SQLite
<code>/Documents/drivekit/users/<User_ID>/files/</code>	<code>*</code>	Various
<code>/Documents/drivekit/users/<User_ID>/legs/</code>	<code>*</code>	Text
<code>/Documents/drivekit/users/<User_ID>/thumbnails/</code>	<code>*</code>	Various
<code>/Library/Caches/drivekit/users/<User_ID>/image-fetcher-cache/main-cache/</code>	<code>cacheV0.db</code>	SQLite
<code>/Library/Preferences/</code>	<code>com.google.Drive.plist</code>	Plist



APPSSTORE URL: <https://apps.apple.com/us/app/linkedin-network-job-finder/id288429040>

<i>/private/var/mobile/Containers/data/Application/<APP_GUID></i>		
Internal App Path	File Name	File Type
/Documents/	Messenger.sqlite	SQLite
/Documents/UIImageCache	*	Various
/Library/Caches/WebKit/NetworkCache/	*	Various
/Library/Preferences/	com.linkedin.Linkedin.plist	Plist


REFERENCES:
<https://www.tandfonline.com/doi/abs/10.1080/00450618.2015.1066854?src=recsys&journalCode=taj20>
<https://digitalcommons.newhaven.edu/cgi/viewcontent.cgi?article=1017&context=electricalandcomputerengineering-faculty>
<https://fr.scribd.com/document/5761870/Shmocon-2011-Inside-the-App-All-Your-Data-are-Being-to-Me>

LogMeIn

APPSSTORE URL: <https://apps.apple.com/us/app/logmein/id479229407>

`/private/var/mobile/Containers/Data/Application/-APP_GUID-`


Internal App Path	File Name	File Type
/Library/LogMeInConfig/	com.logmein.ignition.xml	XML
/Library/LogMeInConfig/	sessiondata.xml	XML
/Library/Preferences/	com.logmein.logmein.plist	Plist



APPSSTORE URL: <https://apps.apple.com/us/app/microsoft-onedrive/id47373958>

/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Database/	moddatabase.db	SQLite
/Library/Preferences/	com.microsoft.skydrive.plist	Plist
/SplashBoard/Snapshots/	*	KTX
/private/var/mobile/Containers/Shared/AppGroup/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Preferences/	group.com.microsoft.onedrive.plist	Plist
/OneDrive/DatabaseQT/	QTMetadata.db	SQLite
/OneDrive/StramCacheQT/	*	Various

REFERENCES:
https://digital-forensics.sans.org/summit-archives/Prague_Summit/Cloud_Storage_Forensics_Mattia_Epifani.pdf


	<p>APPSSTORE URL: https://apps.apple.com/us/app/microsoft-teams/id113153706</p> <hr/> <p>/private/var/mobile/Containers/Data/Application/<APP_GUID></p> <table><tr><th>Internal App Path</th><th>File Name</th><th>File Type</th></tr><tr><td>/Library/IntuneMAM/</td><td>Config.plist</td><td>Plist</td></tr><tr><td>/Library/Shift/</td><td>Shift.sqlite</td><td>SQLite</td></tr><tr><td>/Library/Preferences/</td><td>com.microsoft.skypeteams.plist</td><td>Plist</td></tr><tr><td>/SplashBoard/Snapshots/</td><td>*</td><td>KTX</td></tr></table>	Internal App Path	File Name	File Type	/Library/IntuneMAM/	Config.plist	Plist	/Library/Shift/	Shift.sqlite	SQLite	/Library/Preferences/	com.microsoft.skypeteams.plist	Plist	/SplashBoard/Snapshots/	*	KTX
Internal App Path	File Name	File Type														
/Library/IntuneMAM/	Config.plist	Plist														
/Library/Shift/	Shift.sqlite	SQLite														
/Library/Preferences/	com.microsoft.skypeteams.plist	Plist														
/SplashBoard/Snapshots/	*	KTX														

Microsoft Teams

/private/var/mobile/Containers/Shared/AppGroup/<APP_GUID>

Internal App Path	File Name	File Type
/Library/Preferences/	group.com.microsoft.skype.teams.plist	Plist
/SkypeSpacesDogfood/<Team_ID>/	SkypeSpacesDogfood-<GUID>.sqlite	SQLite
/SkypeSpacesDogfood/Downloads/<Team_ID>/	*	Various

Internal App Path	File Name	File Type
/Library/Preferences/	ProtonMail.sqlite	SQLite
/Library/Preferences/	group.ch.protonmail.protonmail.plist	Plist



Silent Phone

APPSSTORE URL: <https://apps.apple.com/us/app/silent-phone/id554269204>

Internal App Path	File Name	File Type
/private/var/mobile/Containers/Data/Application/<APP_GUID>/Library/Application Support/com.silentcircle.SilentPhone/Chat/	ChatMessages_cipher.db	SQLite
/Library/Application Support/com.silentcircle.SilentPhone/tivi/	axo-<User_ID>-secure_sql.db	SQLite
/Library/Application Support/com.silentcircle.SilentPhone/tivi/	zids_sqlite.db	SQLite
/Library/Preferences/	com.silentcircle.SilentPhone.plist	Plist

The Slack logo, which consists of seven colorful circles (blue, orange, green, red, purple, yellow, and pink) arranged in a hexagonal pattern.


Slack

APPSSTORE URL: <https://apps.apple.com/us/app/slack/id618783545>

/private/var/mobile/Containers/Data/Application/~APP_GUID~		
Internal App Path	File Name	File Type
/Library/Application Support/Slack/		
sqlite_db/Database/	main.db	SQLite
/Library/Caches/com.tinyspeck.chatlyio/		
fsCachedData/	*	JPG
/Library/Caches/default.com.hackemist.		
SDWebImageCache.default/	*	JPG
/Library/Preferences/	com.tinyspeck.chatlyio.plist	Plist


REFERENCES:

<https://abrigoni.blogspot.com/2018/10/finding-slack-app-messages-in-ios.html>



APPSSTORE URL: <https://apps.apple.com/us/app/tutanota/id922429609>

Internal App Path	File Name	File Type
/Library/Preferences/	detatutatanota.plist	Plist
/Library/WebKit/WebsiteData/IndexedDB/	IndexedDB.sqlite	SQLite
/Library/Webkit/WebsiteData/LocalStorage/	file_0_localstorage	SQLite
/SplashBoard/Snapshots/	*	KTX




Wire

APPSSTORE URL: <https://apps.apple.com/us/app/wire-secure-messenger/id93094768>

/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Preferences/	com.waareta.zclient.ios.plist	Plist
/SplashBoard/Snapshots/	*	KTX

/private/var/mobile/Containers/Shared/AppGroup/<APP_GUID>		
Internal App Path	File Name	File Type
/AccountData/<GUID>/store/	store.wiredatabase	SQLite
/Accounts/	*	JSON
/Library/Caches/	*	Various
/Library/Preferences/	group.com.waareta.zclient.ios.plist	Plist

REFERENCES:
<https://www.x4i-dsec.de/reports/X4i-Kudelski-Wire-Security-Review-iOS.pdf>
<https://blog.oxygen-forensic.com/wire-app-extraction>
<https://wire-docs.wire.com/download/Wire-Security-Whitepaper.pdf>



APPSSTORE URL: <https://apps.apple.com/us/app/zoom-cloud-meetings/id546505307>

Internal App Path	File Name	File Type
/Documents/data/	*	JPG
/Documents/data/	zoommeeting.db	SQLite
/Documents/data/	zoomus.db	SQLite
/Documents/data/	zoomus.tmp.db	SQLite
/Documents/data/<User_ID>/	<User_ID>-ompp.zoom.us.asyn.db	SQLite
/Documents/data/<User_ID>/	<User_ID>-ompp.zoom.us.db	SQLite
/Documents/data/<User_ID>/	<User_ID>-ompp.zoom.us.sync.db	SQLite
/Library/Preferences/	us.zoom.videomeetings.plist	Plist

REFERENCES:
<https://www.hackblog.com/2020/04/daily-bug-684-solution-saturday-42520.html>

iOS third-party apps can be installed from the Apple App Store, where they are organized based on categories (e.g., Social Networking, Business/Productivity, Navigation & Travel, and so on).

Once an app is installed on an iOS device:

- App Bundle is installed in a subfolder in the `/private/var/containers/Bundle` folder
- App Data is stored in a subfolder in the `/private/var/mobile/Containers/Data/Application/` folder (App Sandbox)

The easiest way to track down an iOS application's Data folder is to analyze the `/private/var/mobile/Library/FrontBoard/applicationstate.db` database, as described in a blog post by Alexis Brignoni¹.

Some Apps can also store data in other subfolders like the `/private/var/mobile/Containers/Share/AppGroup/` folder. Two good ways to locate the Sandbox folder for the AppGroup are mentioned in blog posts by Scott Vance³ and Yogesh Khatri⁴.

The internal structure of an App folder can be determined by the developer, but Apple provides some guidelines in its *File System Programming Guide*⁵.

¹ Image is extracted from:

<https://developer.apple.com/library/archive/documentation/FileManagement/Conceptual/FileSystemProgrammingGuide/FileSystemOverview/FileSystemOverview.html>

² <https://abrignoni.blogspot.com/2018/12/identifying-installed-and-uninstalled.html>

³ <https://blog.dz04n6.com/2020/09/ios-tracking-bundle-ids-for-containers.html>

⁴ <https://www.swiriforensics.com/2021/01/files-application-groups-shared-data.html>

⁵ <https://developer.apple.com/library/archive/documentation/FileManagement/Conceptual/FileSystemProgrammingGuide/FileSystemOverview/FileSystemOverview.html>


Navigation & Travel



Air France

APPSSTORE URL: <https://apps.apple.com/us/app/air-france/id391968627>

Internal App Path	File Name	File Type
/	bagtracking.realm	Realm
/	checkin.realm	Realm
/	entertainment.realm	Realm
/	flightStatusKit.realm	Realm
/	reservation.realm	Realm
/	trackandtrace.realm	Realm



Airbnb

APPSSTORE URL: <https://apps.apple.com/app/airbnb/id401626263>

/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Documents/	guest_inbox-<User_ID>.db	SQLite
/Documents/	host_experience_inbox-<User_ID>.db	SQLite
/Documents/	host_inbox-<User_ID>.db	SQLite
/Library/Application Support/	guest_inbox-<User_ID>.db	SQLite
/Library/Application Support/	messaging_core.sqlite3	SQLite
/Library/Caches/	<User_ID>-itinerary.db	SQLite
/Library/Caches/	AIRAccount_active_account_login	Plist
/Library/Caches/	AIRUser-<User_ID>	Plist
/Library/Caches/	AIRWishlist-<User_ID>	Plist
/Library/Caches/default.com.hackemist.SDWebImageCache.default/	*	PNG
/Library/Preferences/	com.airbnb.air.plist	Plist

REFERENCES:
<https://blog.oxygen-forensic.com/unangling-airbnb/>


APPSSTORE URL: <https://apps.apple.com/us/app/booking-com-hotels-travel/id367003839>

/private/var/mobile/Containers/Data/Application/<APP_GUID>

Internal App Path	File Name	File Type
/Library/Application Support/	BookingClouds	Plist
/Library/Application Support/	KeyValueStorageAccountDomain	Plist
/Library/Application Support/	KeyValueStorageRecentDomain	Plist
/Library/Application Support/	KeyValueStorageSharedDomain	Plist
/Library/Caches/	location_cache_v2.db	SQLite
/Library/Caches.com.booking.BookingApp/ *		JPG
/com.alamofire.imagedownload/fsCachedData/		*
/Library/Caches.com.booking.BookingApp/ *		JSON
/fsCachedData/		*
/Library/Preferences/	com.booking.BookingApp.plist	Plist

The image shows the Foursquare logo, which is an orange circle with a white stylized bee or flower inside. To the right of the logo, the text "APPSSTORE URL: https://apps.apple.com/us/app/foursquare-swarm-check-in-app/id870161082" is displayed. Below this, a table lists internal app paths, file names, and file types.

Internal App Path	File Name	File Type
/Library/Caches/	foursquare.sqlite	SQLite
/Library/Preferences/	com.foursquare.robin.plist	Plist



Swarn

Google Maps

APPSSTORE URL: <https://apps.apple.com/us/app/google-maps-transit-fod/id585027354>

Internal App Path	File Name	File Type
/Documents/GMSCacheStorage-AZSpotlightStorageModel(GMSCacheStorage-AZSpotlightStorageModel/	AZSpotlightStorageModel.sqlite	SQLite
/Library/Application Support/CachedRoutes/	*	Plist
/Library/Application Support/GMSCacheStorage-MyMaps/	MyMaps.sqlite	SQLite
/Library/Application Support/GMSCacheStorage-SavedUserEvent3/	SavedUserEvent3.sqlite	SQLite
/Library/Application Support/GMSCacheStorage-Files/	Files.sqlite	SQLite
/Library/Caches/ImageCache	*	JPG
/Library/Caches.com.google.common.SSO-<User_ID>/	Profile.plist	Plist
/Library/Preferences/	com.google.Maps.plist	Plist

/private/var/mobile/Containers/Shared/AppGroup/ -APP_GUID-		
Internal App Path	File Name	File Type
/Library/Preferences/	CurrentDirections	Plist
/Library/Preferences/	group.com.google.Maps.plist	Plist

REFERENCES:

<https://commons.erau.edu/cgi/viewcontent.cgi?article=1444&context=jdfsl>
<https://www.ijrte.org/wp-content/uploads/papers/v8i4/D4374181849.pdf>

REFERENCES:
https://www.researchgate.net/publication/23759986_A_Dynamic_and_Static_Analysis_of_the_Uber_Mobile_Application_from_a_Privacy_Perspective

Brave
Browser


APPSSTORE URL: <https://apps.apple.com/us/app/brave-private-browser-vpn/id1052879175>

/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Documents/Downloads/	*	Various
/Library/Application Support/	Brave.sqlite	SQLite
/Library/Preferences/	com.brave.ios.browser.plist	Plist


APPSSTORE URL: <https://apps.apple.com/us/app/bruner-private-phone-line/id1052800761>

```
/private/var/mobile/Containers/Data/Application/<APP_GUID>
```

Internal App Path	File Name	File Type
/Library/Caches/com.adhocclabs.burner/	Cache.db	SQLite
/Library/Caches/com.adhocclabs.burner/	+	Various
/Caches/data/		
/Library/Preferences/	com.adhocclabs.burner.plist	Plist
/Splashboard/Snapshots/	+	KTXT

 **Burner**

```
/private/var/mobile/Containers/Shared/AppGroup/<APP_GUID>
```

	/	Phoenix.sqlite	SQLite
REFERENCES:			
https://digitalforensicsposts.com/2013/07/forensic-artifact-analysis-of-the-burner-app-for-the-iphone			
	APPSSTORE URL: https://apps.apple.com/us/app/duckduckgo-privacy-browser/id63592361		
	/private/var/mobile/Containers/Data/Application/ <APP_GUID>		
	Internal App Path	File Name	File Type
	/Library/Preferences/	com.duckduckgo.mobile.ios.plist	Plist


REFERENCES:
<https://digitalforensicscpts.com/2013/07/forensic-artifact-analysis-of-the-burner-app-for-the-iphone>

Firefox

APPSSTORE URL: <https://apps.apple.com/us/app/firefox-private-safe-browser/id989804926>


/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Caches/WebKit/NetworkCache/	*	Various
/Library/Preferences/	org.mozilla.ios.firefox.plist	Plist

/private/var/mobile/Containers/Shared/AppGroup/<APP_GUID>		
Internal App Path	File Name	File Type
/profile/profile/	browser.db	SQLite
/profile/profile/	logins.db	SQLite
/profile/profile/	places.db	SQLite
/profile/profile/	tabState.archive	Plist
/Library/Preferences/	group.org.mozilla.ios.firefox.plist	Plist

	APPSSTORE URL: https://apps.apple.com/us/app/firefox-private-safe-browser/id989804926	
Internal App Path	File Name	File Type
/Library/Caches/WebKit/NetworkCache/	*	Various
/Library/Preferences/	org.mozilla.ios.firefox.plist	Plist
Internal App Path	File Name	File Type
/profile.profile/	browser.db	SQLite
/profile.profile/	logins.db	SQLite
/profile.profile/	places.db	SQLite
/profile.profile/	tabState.archive	Plist
/Library/Preferences/	group.org.mozilla.ios.firefox.plist	Plist

APPSSTORE URL: <https://apps.apple.com/us/app/klm/id391732065>

/private/var/mobile/Containers/Data/Application/ <APP_GUID>		
Internal App Path	File Name	File Type
/Documents/	CoreAppRedesign_iPhone.sqlite	SQLite
/Library/Caches/com.klm.mobile.iphone.klmmobile/	* fsCachedData/	Various
/Library/Preferences/	com.klm.mobile.iphone.klmmobile.plist	Plist




APPSSTORE URL: <https://apps.apple.com/us/app/lufthansa/id299219152>

```

/private/var/mobile/Containers/Data/Application/<APP_GUID>

Internal App Path      File Name      File Type
/Documents/            *              HTML
/Library/Application Support/ Database.sqlite SQLite
/Library/Caches.com.lufthansa.launcher/ fsCachedData/  XML
/Library/Preferences/  com.lufthansa.launcher.plist Plist


```



APPSSTORE URL: <https://apps.apple.com/us/app/skyscanner-travel-deals/id415458524>


Internal App Path	File Name	File Type
/Documents/	MiniEvents.sqlite	SQLite
/Documents/WatchedFlights/	WatchedFlights.json	JSON
/Library/Caches/com.hackemist.SDImageCache/default/	*	JPG
/Library/Caches/net.skyscanner.iphone/	Cache.db	SQLite
/Library/Caches/net.skyscanner.iphone/	netcache/	*
/Library/Caches/net.skyscanner.iphone/	netcache/fsCachedData/	JSON
/Library/Preferences/	net.skyscanner.iphone.plist	Plist

Social Networking



APSTORE URL: <https://apps.apple.com/us/app/coverme-private-text-chat/id593652484>


Internal App Path	File Name	File Type
/Documents/	ContactCache	Plist
/Documents/	milio.db	SQLite
/Documents/	notification.plist	Plist
/Documents/	Profile.plist	Plist
/Library/Logs/	*.log	TXT
/Library/Preferences/	com.coverme.covermeAdhoc.plist	Plist



APSTORE URL: <https://apps.apple.com/us/app/discord-talk-chat-hang-out/id95746746>

Internal App Path	File Name	File Type
/Documents/nmkl/	nmkl.default	JSON
/Documents/RTCAsyncLocalStorage_V1/	<GUID>	JSON
/Documents/RTCAsyncLocalStorage_V1/	manifest.json	JSON
/Library/Caches/com.hackemist.SDImageCache/	*	PNG
/Library/Caches/com.hammerandchisel.discord/	Cache.db	SQLite
/Library/Caches/com.hammerandchisel.discord/	f5CachedData/	JSON
/Library/Preferences/	com.hammerandchisel.discord.plist	Plist


REFERENCES:
<https://abrigoni.blogspot.com/2018/08/finding-discord-chats-in-ios.html>
<https://abrigoni.blogspot.com/2020/08/update-on-discord-forensic-artifacts.html>
<https://www.mw3.org/docs/research/discord.pdf>



APSTORE URL: <https://apps.apple.com/us/app/facebook/id42882215>

Internal App Path	File Name	File Type
/Documents/	time_in_app_<User_ID>.db	SQLite
/Library/Caches/com.facebook/	*	Various
/Library/Caches/com.facebook/	facebook.MosaicImageDiskCache/	SQLite
/Library/Caches/graphStoreDB/	GraphStore_<User_ID>.sqlite3	SQLite
/Library/Caches/messenger_contacts_<GUID>/	tsyncstore.db	SQLite
/Library/Caches/search_bootstrap_<GUID>/search/	graph_search_entity_bootstrap.data	File
/Library/Caches/video_cache_<GUID>/storage/	*	Plist
/Library/Preferences/	com.facebook.Facebook.plist	Plist

REFERENCES:
https://www.academia.edu/10726810/Social_Media_Forensics_on_Mobile_Devices
<https://www.tandfonline.com/doi/abs/10.1080/09450618.2015.1066854?src=recsys&journalCode=taj20>
https://www.bhcg.gov/public/2017/jul/Facebook_Forensics_Finalized.pdf
https://www.researchgate.net/publication/22427519_Third_Party_Application_Forensics_on_Apple_Mobile_Devices
<https://www.diva-portal.org/smash/get/diva2:651693/fulltext01.pdf>




APSTORE URL: <https://apps.apple.com/us/app/messenger/id45438411>

Internal App Path	File Name	File Type
/Documents/(com.facebook.Messenger.preferences/	<User_ID>.session	Plist
/Documents/messenger_secure_messages.sessionless/	<User_ID>.threadStateStore.db	SQLite
/Documents/messenger_secure_messages.sessionless/	<User_ID>.v146784789.tincan.db	SQLite
/Library/Caches/graphStoreDB/	GraphStore_<User_ID>.sqlite3	SQLite
/Library/Preferences/	com.facebook.Messenger.plist	Plist


Internal App Path	File Name	File Type
/	lightspeed_<User_ID>.db	SQLite
/store_<GUID>/messenger_contacts.v1/	fbommistore.db	SQLite
/shared_messenger_contacts_<GUID>/	fbommistore.db	SQLite
/shared_messenger_messages_<GUID>/	orca2.db	SQLite
/lightspeed-imageCache/	*	Various

REFERENCES:
https://www.academia.edu/10726810/Social_Media_Forensics_on_Mobile_Devices
<https://bonaldoforensics.wordpress.com/2018/07/28/facebook-messenger-windows-app-store-forensics>
<https://www.champlain.edu/Documents/LCD/iPhone%20Artifacts.pdf>
<https://sqliteforensictoolkit.com/forensic-browser-for-sqlite-structured-storage-manager>



APSTORE URL: <https://apps.apple.com/us/app/google-duo/id109691871>


Internal App Path	File Name	File Type
/Documents/Logs/	*	TXT
/Library/Application Support/	DataStore	SQLite
/Library/Caches/com.google.common.SSO_<User_ID>/	Profile.plist	Plist
/Library/Preferences/	com.google.tachyon.plist	Plist



APSTORE URL: <https://apps.apple.com/us/app/houseparty/id1065878169>

Internal App Path	File Name	File Type
/Documents/	houseparty.rocky.phonenumbers	Realm
/Documents/	houseparty.rocky.realm	Realm
/Library/Caches/com.herick.houseparty/f5CachedData/	*	JSON
/Library/IBGLog/	INGUserAttribute.txt	TXT
/Library/Preferences/	com.herick.houseparty.plist	Plist
/Library/Preferences/	Houseparty.plist	Plist
/Splashboard/Snapshots/	*	KTX

REFERENCES: <https://abrigoni.blogspot.com/2020/04/ios-houseparty-app-more-realm.html>




APSTORE URL: <https://apps.apple.com/us/app/imo-video-calls-and-chat-hd/id1400579543>

Internal App Path	File Name	File Type
/Documents/	imo_acc	Plist
/Documents/	imo_last_ts_log_appLive	Plist
/Documents/	imo_save_media_local_setting_1	Plist
/Documents/	imo_stories	Plist
/Library/Caches/default.com.hackemist.SDWebImageCache.default/	*	Various
/Library/Caches/Videos/	*	Various
/Library/Preferences/	co.babypenguin.imo.plist	Plist
/Splashboard/Snapshots/	*	KTX

Internal App Path	File Name	File Type
/	IMODi2.sqlite	SQLite
/	IMOShareDB.sqlite	SQLite
/Library/Preferences/	group.co.babypenguin.plist	Plist

REFERENCES:
<https://www.sciencedirect.com/science/article/abs/pii/S174287618300094>
<https://prhcg.gov.pk/jspui/bitstream/12345678/13429/1/Muhammad%20Aad%20Khan%20Sudoza%20Electrical%20Engg%202019%20IUST%2026%2020r.pdf>
<https://www.champlain.edu/Documents/LCD/iPhone%20Artifacts.pdf>
<https://sqliteforensictoolkit.com/forensic-browser-for-sqlite-structured-storage-manager>




APSTORE URL: <https://apps.apple.com/us/app/kik/id57218860>

Internal App Path	File Name	File Type
/Library/Caches/(com.kik.chat/f5CachedData/	*	Various
/Library/Preferences/	com.kik.chat.plist	Plist
/Splashboard/Snapshots/	*	KTX

Internal App Path	File Name	File Type
/cores/private_<User_ID>/	kik.sqlite	SQLite
/cores/private_<User_ID>/app-lock/	app-lock-settings	JSON
/cores/private_<User_ID>/attachments/	*	Various
/cores/private_<User_ID>/defaults/	kik.defaults	Plist
/cores/private_<User_ID>/globalDefaults/	kik.defaults	Plist
/cores/private_<User_ID>/suggested-chats/	suggested	JSON
/cores/private_<User_ID>/urlData/	*	PNG
/globalDefaults/	kik.defaults	Plist
/Library/Preferences/	group.com.kik.chat.plist	Plist

REFERENCES:
<https://www.sciencedirect.com/science/article/pii/S174287618300094>
https://researchonline.gcu.ac.uk/files/24282895/K.Ovens_revisedMNOvensManuscript3_2.pdf
<https://www.scribd.com/doc/145278610/Artifacts-of-Kik-Messenger-on-iOS>
<https://blog.oxygen-forensic.com/kick-kik>




APSTORE URL: <https://apps.apple.com/us/app/line/id43904275>

Internal App Path	File Name	File Type
/Library/Application Support/PrivateStore/	*	Various
/Library/Caches/jp.navetline/f5CachedData/	*	Various
/Library/Preferences/	jp.navetline.plist	Plist


Internal App Path	File Name	File Type
/Library/Application Support/KeepFileProvider/	Keep.sqlite	SQLite
/Library/Application Support/PrivateStore/	ChatExt.sqlite	SQLite
<User_ID>/Messages/	E2EEData.sqlite	SQLite
<User_ID>/Messages/	Line.sqlite	SQLite
/Library/Preferences/	group.com.linecorp.line.plist	Plist

REFERENCES:
<https://pzet.com/mloaxcwyv/iphone-forensic-line/>
<https://reincubate.com/support/how-to-recover-iphone-hike-line-wechat-messages/>
<https://pdfs.semanticscholar.org/f666/52f6f64c4cf44dd7d433c5fa00b5ca0a.pdf>



APSTORE URL: <https://apps.apple.com/us/app/mewe-network/id918464474>

Internal App Path	File Name	File Type
/Documents/	Sgrouplesb.sqlite	SQLite
/Library/Caches/com.mewe/f5CachedData/	*	Various
/Library/Caches/com.hackemist.SDImageCache/	*	Various
/Library/Preferences/	com.mewe.plist	Plist




APSTORE URL: <https://apps.apple.com/us/app/signal-private-messenger/id81439969>

Internal App Path	File Name	File Type
/Library/Caches/	*	JPG
/Library/Logs/	*.log	TXT
/Library/Preferences/	org.whispersystems.signal.plist	Plist


Internal App Path	File Name	File Type
/Attachments/	*	Various
/grbl/	signal.sqlite	SQLite
/Library/Preferences/	group.org.whispersystems.signal_group.plist	Plist
/ProfileAvatars/	*	JPG

REFERENCES:
<https://github.com/Magool/HowTo-decrypt-Signal.sqlite-for-iOS>
<https://support.magnetforensics.com/s/article/Decrypt-app-data-using-the-iOS-Keychain-and-GrayKey>
<https://pdfs.semanticscholar.org/f666/52f6f64c4cf44dd7d433c5fa00b5ca0a.pdf>
<https://isc.sans.edu/forums/diary/Looking-for-the-insider-Forensic-Artifacts-on-iOS+Messaging+App/21363>
<http://www.jlits-bg.com/contents/IT/ITS-No4-2019/2019-NU-07.pdf>



APSTORE URL: <https://apps.apple.com/us/app/skout-meet-new-people/id302324249>

Internal App Path	File Name	File Type
/Library/Application Support/SKOUT/	SKCache.sqlite	SQLite
/Library/Caches/default.com.hackemist.SDWebImageCache.default/	*	Various
/Library/Preferences/	com.skout.SKOUT.plist	Plist
/Splashboard/Snapshots/	*	KTX




APSTORE URL: <https://apps.apple.com/us/app/skype-for-iphone/id304878510>

Internal App Path	File Name	File Type
/Documents/RTCAsyncLocalStorage_V1/	manifest.json	JSON
/Library/Application Support/SkypeUserLife(Skype_<Skype_Username>/	main.db	SQLite
/Library/Caches/Logs/	com.skype*.log	TXT
/Library/LocalDatabase/	s4l_<Skype_Username>.db	SQLite
/Library/Preferences/	com.skype.skype.plist	Plist

Internal App Path	File Name	File Type
/	s4l_<Skype_Username>.db	SQLite

REFERENCES:
<https://tebinyan4n6.blogspot.com/2019/07/>
<https://pdfs.semanticscholar.org/f666/52f6f64c4cf44dd7d433c5fa00b5ca0a.pdf>




APSTORE URL: <https://apps.apple.com/us/app/telegram-messenger/id68649807>

Internal App Path	File Name	File Type
/Library/Preferences/	ph.telegram.Telegram.plist	Plist
/Library/Caches/ph.telegram.Telegraph/f5CachedData/	*	Various


Internal App Path	File Name	File Type
/	lightspeed_<User_ID>.db	SQLite
/telegram-data/account_<Account_ID>/postbox/db/	db.sqlite	SQLite
/telegram-data/account_<Account_ID>/postbox/	*	Various
/telegram-data/logs/	*	TXT
/telegram-data/share-logs/	*	TXT

REFERENCES:
<https://www.forensicfocus.com/news/telegram-messenger-data-extraction-in-oxygen-forensic-detective>




APSTORE URL: <https://apps.apple.com/us/app/textnow-call-text-unlimited/id314716233>

Internal App Path	File Name	File Type
/Documents/	<User_ID>	SQLite
/Documents/(com.hackemist.SDWebImageCache.default/	*	JPG
/Library/Application Support/	eventHistory.db	SQLite
/Library/Caches/Logs/sip/	*.log	TXT
/Library/Caches/media/	*	JPG
/Library/Preferences/	com.tinginteractive.usms.plist	Plist



APSTORE URL: <https://apps.apple.com/us/app/tinder-dating-new-people/id547702041>

Internal App Path	File Name	File Type
/Library/Application Support/	Tinder2.sqlite	SQLite
/Library/Preferences/	com.cardify.tinder.plist	Plist

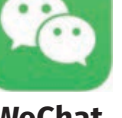


APSTORE URL: <https://apps.apple.com/us/app/viber-messenger-chats-calls/id38261920>

Internal App Path	File Name	File Type
/Documents/Attachments/	*	Various
/Documents/ChatExicons/	*	Various
/Documents/Engagement/	*	Various
/Library/Caches/com.viber/f5CachedData/	*	Various
/Library/Preferences/	com.viber.plist	Plist
/Splashboard/Snapshots/	*	KTX

Internal App Path	File Name	File Type
/com.viber/AttachmentsPreview/	*	Various
/com.viber/ContactIcons/	*	JPG
/com.viber/database/	Contacts.data	SQLite
/com.viber/settings/	Settings.data	SQLite


REFERENCES:
<https://pdfs.semanticscholar.org/f666/52f6f64c4cf44dd7d433c5fa00b5ca0a.pdf>
<https://blog.oxygen-forensic.com/viber-messenger-forensics>
<https://blog.digital-forensics.it/2019/12/checkrkn-era-ep-4-analyzing.html>



APSTORE URL: <https://apps.apple.com/us/app/wechat/id41448124>

Internal App Path	File Name	File Type
/Documents_<User_ID>/	mmsetting.archive	Plist
/Documents_<User_ID>/DB/	WC05_008.db	SQLite
/Documents_<User_ID>/DB/	MM.sqlite	SQLite
/Documents_<User_ID>/DB/	WCDB_Contact.sqlite	SQLite
/Library/Preferences/	com.tencent.xin.plist	Plist

REFERENCES:
https://www.researchgate.net/publication/261016959_Forensic_Analysis_of_Social_Networking_Application_on_iOS_devices
<https://www.citricurymagazine.com/articoli/wechat-forensics-part-i>



APSTORE URL: <https://apps.apple.com/us/app/whatsapp-messenger/id310633997>

Internal App Path	File Name	File Type
/Documents/	Blockedcontacts.data	Plist
/Documents/	calls.backup.log	Plist
/Documents/	StatusMessages.plist	Plist
/Library/Caches/ChatMedia/	*	Various
/Library/Caches/GalleryMedia/	*	Various
/Library/Caches/net.whatsapp.WhatsApp/f5CachedData/	*	Various
/Library/Caches/spotlight-profile-v2/	*	PNG
/Library/Logs/	whatsapp*.log	TXT
/Library/Preferences/	net.whatsapp.WhatsApp.plist	Plist
/Splashboard/Snapshots/	*	KTX

Internal App Path	File Name	File Type
/	calls.log	Plist
/	CallHistory.sqlite	SQLite
/	ChatStorage.sqlite	SQLite
/	ContactsV2.sqlite	SQLite
/	current_wallpaper.jpg	JPG
/	Location.sqlite	SQLite
/Biz/	Biz.sqlite	SQLite
/fts/	ChatSearch*.sqlite	SQLite
/Library/Preferences/	group.net.whatsapp.WhatsApp.shared.plist	Plist
/Media/Profile/	*	Various
/Message/Media/	*	Various
/stickers/	*	Various

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https://www.group-ib.com/blog/whatsapp_forensic_artifacts
<https://pdfs.semanticscholar.org/f666/52f6f64c4cf44dd7d433c5fa00b5ca0a.pdf>
<https://sdsudomul.com/post/30099-WhatsApp-in-the-palm-of-your-hand-where-and-how-can-you-detect-forensic-artifacts-Group-IB-Blog>
<https://www.ijesm.com.in/uploads/68/5543.pdf>
<http://www.securitybylead.com/2011/06/what-whatsapp-doesnt-tell-you.html>




APSTORE URL: <https://apps.apple.com/us/app/wickr-me-private-messenger/id2896254>

Internal App Path	File Name	File Type
/Library/Caches/XSCrashReports/Wickr Me/	*	JSON
/Library/Caches/Sessions/Wickr Me/	*	JSON
/Library/Preferences/	com.myyickrwickr.plist	Plist

Internal App Path	File Name	File Type
/	wickrLocal.sqlite	SQLite

REFERENCES:
<https://thebinaryhick.blog/2019/08/03/wickr-alright-well-it-c-a-draw>
<https://blog.oxygen-forensic.com/wickr-some-forensics-up>
<https://support.magnetforensics.com/s/article/Decrypt-app-data-using-the-iOS-Keychain-and-GrayKey>

Entertainment/Photo & Video




APSTORE URL: <https://apps.apple.com/us/app/paypal/id283646709>

Internal App Path	File Name	File Type
/Library/Preferences/	com.yourcompany.PPClient.plist	Plist

APSTORE URL: <https://apps.apple.com/us/app/venmo/id1351727428>

Internal App Path	File Name	File Type
/Documents/	Model.sqlite	SQLite
/Documents/	mParticle28.db	SQLite
/Library/Caches/com.hackemist.SDImageCache.default/	*	Various
/Library/Preferences/	net.kortina.labs.Venmo.plist	Plist
/Splashboard/Snapshots/	*	KTX

REFERENCES: <https://tebinyan4n6.blogspot.com/2019/07/01/venmo-the-app-for-virtual-balls>



APSTORE URL: <https://apps.apple.com/us/app/reddit/id1064216828>

Internal App Path	File Name	File Type
/Documents/release02/accounts/	*	Plist
/Documents/release02/accountData/	*	Plist
/Library/Caches/com.reddit.Reddit/f5CachedData/	*	Various
/Library/Caches/com.reddit.Reddit/imageload/f5CachedData/	*	Various
/Library/Preferences/	com.reddit.Reddit.plist	Plist

APSTORE URL: <https://apps.apple.com/us/app/twitter/id333903271>

DEVELOPER WEBSITE: <http://twitter.com/download/iphone>

APP SUPPORT: <https://support.twitter.com/articles/20169906>

PRIVACY POLICY: <https://twitter.com/privacy>

Internal App Path	File Name	File Type
/Documents/(com.atebits.tweetie.application-important-state/	appacct_<Twitter_Username>	Plist
/Documents/(com.atebits.tweetie.compose.attachments/	*	JPG
/Documents/(com.atebits.tweetie.direct-message.attachments/	*	Various
/Library/Caches/(com.atebits.Tweetie2/f5CachedData/	*	Various
/Library/Caches/(com.atebits.Tweetie2.direct-message.cache/	<User_ID>-<User_Number>	Plist