

# iOS Third-Party Apps Forensics

## REFERENCE GUIDE

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

DFPS iOS-APPS-v1.3\_04-24

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## Business/Productivity



Doodle

APPSTORE URL: <a href="https://apps.apple.com/us/app/doodle-easy-scheduling/id938182547">https://apps.apple.com/us/app/doodle-easy-scheduling/id938182547</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Documents/	doodle.jpgdb	SQLite
/Library/Caches/com.doodle.Doodle-App/	*	Various
/Library/CachedData/		
/Library/Preferences/	com.doodle.Doodle-App.plist	Plist



LogMeIn

APPSTORE URL: <a href="https://apps.apple.com/us/app/logmein/id479229407">https://apps.apple.com/us/app/logmein/id479229407</a>		
/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



Microsoft OneDrive

APPSTORE URL: <a href="https://apps.apple.com/us/app/microsoft-one-drive/id47537958">https://apps.apple.com/us/app/microsoft-one-drive/id47537958</a>		
/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/	group.com.microsoft.onedrive.plist	Plist
/OneDrive/DatabaseQT/	QTMetadata.db	SQLite
/OneDrive/StreamCacheQT/		Various



Microsoft Teams

APPSTORE URL: <a href="https://apps.apple.com/us/app/microsoft-teams/id113153706">https://apps.apple.com/us/app/microsoft-teams/id113153706</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/IntuneMAM/	Config.plist	Plist
/Library/Shift/	Shift.sqlite	SQLite
/Library/Preferences/	com.microsoft.skype.teams.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.skype.teams.plist	Plist
/SkypeSpacesDogfood-/Team_ID-/	SkypeSpacesDogfood-<GUID>.sqlite	SQLite
/SkypeSpacesDogfood/Downloads-/Team_ID-/	*	Various



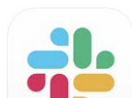
Proton Mail

APPSTORE URL: <a href="https://apps.apple.com/us/app/protonmail-encrypted-email/id979659905">https://apps.apple.com/us/app/protonmail-encrypted-email/id979659905</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Caches/SentryCrash/ProtonMail/Data/	CrashState.json	JSON
/Library/Preferences/	ch.protonmail.protonmail.plist	Plist
/private/var/mobile/Containers/Shared/AppGroup/<APP_GUID>		
Internal App Path	File Name	File Type
/	ProtonMail.sqlite	SQLite
/Library/Preferences/	group.ch.protonmail.protonmail.plist	Plist



Silent Phone

APPSTORE URL: <a href="https://apps.apple.com/us/app/silent-phone/id554269204">https://apps.apple.com/us/app/silent-phone/id554269204</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Application Support/ com.silenticircle.SilentPhone/Chat/	ChatMessages_cipher.db	SQLite
/Library/Application Support/ com.silenticircle.SilentPhone/Chat/	axo_<User_ID>_secure_sql.db	SQLite
/Library/Application Support/ com.silenticircle.SilentPhone/tvi/	zids_sqlite.db	SQLite
/Library/Preferences/	com.silenticircle.SilentPhone.plist	Plist
/private/var/mobile/Containers/Shared/AppGroup/<APP_GUID>		
Internal App Path	File Name	File Type
/com.silenticircle.SilentPhone/Chat/	*	JPG
/com.silenticircle.SilentPhone/Preferences/	preferences.plist	Plist



Slack

APPSTORE URL: <a href="https://apps.apple.com/us/app/slack/id618783545">https://apps.apple.com/us/app/slack/id618783545</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Application Support/ Slack/	main.db	SQLite
/Library/Caches/com.tinsyspec.chatgptio/	*	JPG
/Library/Caches/com.tinsyspec.chatgptio/	fsCachedData/	
/Library/Caches/default/com.hackemist.SDWebImageCache.default/	*	JPG
/Library/Preferences/	com.tinsyspec.chatgptio.plist	Plist



Tutanota

APPSTORE URL: <a href="https://apps.apple.com/us/app/tutanota/id92429609">https://apps.apple.com/us/app/tutanota/id92429609</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Preferences/	de.tutao.tutanota.plist	Plist
/Library/WebKit/WebsiteData/IndexedDB/	indexedDBs.sqlite3	SQLite
/Library/WebKit/WebsiteData/LocalStorage/	file_0_localstorage	SQLite
/SplashBoard/Snapshots/	*	KTX



Wire

APPSTORE URL: <a href="https://apps.apple.com/us/app/wire-secure-messenger/id450944768">https://apps.apple.com/us/app/wire-secure-messenger/id450944768</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Preferences/	com.wearezeta.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.wearezeta.zclient.ios.plist	Plist



Zoom

APPSTORE URL: <a href="https://apps.apple.com/us/app/zoom-cloud-meetings/id546055307">https://apps.apple.com/us/app/zoom-cloud-meetings/id546055307</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
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>-@mpp.zoom.us.asyn.db	SQLite
/Documents/data-/User_ID-/	<User_ID>-@mmp.zoomus.db	SQLite
/Documents/data-/User_ID-/	<User_ID>-@mmp.zoomus.idx.db	SQLite
/Documents/data-/User_ID-/	<User_ID>-@mmp.zoomus.sync.db	SQLite
/Library/Preferences/	us.zoom.videomeetings.plist	Plist

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 Brignoni<sup>1</sup>.

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 Vance<sup>3</sup> and Yogesh Khatri<sup>4</sup>.

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

<sup>1</sup> Image is extracted from:<https://developer.apple.com/library/archive/documentation/FileManagement/Conceptual/FileSystemProgrammingGuide/FileSystemOverview/FileSystemOverview.html><sup>2</sup> <https://abrignoni.blogspot.com/2018/12/identifying-installed-and-uninstalled.html><sup>3</sup> <https://blog.d2o4ne.com/2020/09/ios-tracking-bundle-ids-for-containers.html><sup>4</sup> <https://www.swiftforensics.com/2022/01/free-application-groups-shared-data.html><sup>5</sup> <https://developer.apple.com/library/archive/documentation/FileManagement/Conceptual/FileSystemProgrammingGuide/FileSystemOverview/FileSystemOverview.html>

## Navigation & Travel



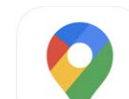
Booking

APPSTORE URL: <a href="https://apps.apple.com/us/app/booking-com-hotels-travel/id87003839">https://apps.apple.com/us/app/booking-com-hotels-travel/id87003839</a>		
/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/	KeyValueStorageShareDomain	Plist
/Library/Caches/	location_cache_v2.db	SQLite
/Library/Caches/	com.booking.BookingApp/	*
/Library/Caches/	com.alamofire.image downloader/fsCachedData/	JPG
/Library/Caches/	com.booking.BookingApp/	JSON
/Library/Preferences/	com.booking.BookingApp.plist	Plist



Foursquare Swarm

APPSTORE URL: <a href="https://apps.apple.com/us/app/foursquare-swarm-check-in-app/id870161082">https://apps.apple.com/us/app/foursquare-swarm-check-in-app/id870161082</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Caches/	foursquare.sqlite	SQLite
/Library/Preferences/	com.foursquare.robin.plist	Plist



Google Maps

APPSTORE URL: <a href="https://apps.apple.com/us/app/google-maps-transit-food/id585027354">https://apps.apple.com/us/app/google-maps-transit-food/id585027354</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Documents/GMSCacheStorage-AZSpotlight	AZSpotlightStorageModel.sqlite	SQLite
/Library/Application Support/	com.google.gscors.account.AllAccountFile	Plist
/Library/Application Support/CachedRoutes/		Plist
/Library/Application Support/	MyMaps.sqlite	SQLite
/Library/Application Support/	GMSCacheStorage-MyMaps/	SQLite
/Library/Application Support/	SaveUserEvent2.sqlite	SQLite
/Library/Application Support/	GMSCacheStorage-SavedUserEvent3/	SQLite
/Library/Caches/	ImagesCache	*
/Library/Caches/	ImageCache	JPG
/Library/Caches/	google.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



KLM

APPSTORE URL: <a href="https://apps.apple.com/us/app/klm/id391732065">https://apps.apple.com/us/app/klm/id391732065</a>		
/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



Lufthansa

APPSTORE URL: <a href="https://apps.apple.com/us/app/lufthansa/id299219152">https://apps.apple.com/us/app/lufthansa/id299219152</a>		
/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



## Utilities



Brave Browser

APPSTORE URL: <a href="https://apps.apple.com/us/app/brave-private-browser-view/id1052879175">https://apps.apple.com/us/app/brave-private-browser-view/id1052879175</a>		
/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



Burner

APPSTORE URL: <a href="https://apps.apple.com/us/app/burner-private-phone-line/id56800761">https://apps.apple.com/us/app/burner-private-phone-line/id56800761</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Caches/	com.adhocabs.burner/	SQLite
/Library/Caches/	com.adhocabs.burner/	Various
/Library/Preferences/	com.adhocabs.burner.plist	Plist
/SplashBoard/Snapshots/	*	KTX
/private/var/mobile/Containers/Shared/AppGroup/<APP_GUID>		
Internal App Path	File Name	File Type
/	Phoenix.sqlite	SQLite



DuckDuckGo Browser

APPSTORE URL: <a href="https://apps.apple.com/us/app/duckduckgo-privacy-browser/id663592361">https://apps.apple.com/us/app/duckduckgo-privacy-browser/id663592361</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Preferences/	com.duckduckgo.mobile.ios.plist	Plist
/Library/Caches/	com.duckduckgo.NetworkCache/	Various
/Library/Preferences/	Version 16/Records/	*



Firefox

APPSTORE URL: <a href="https://apps.apple.com/us/app/firefox-private-safe-browser/id989804926">https://apps.apple.com/us/app/firefox-private-safe-browser/id989804926</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Library/Caches/	com.mozilla.ios.firefox.plist	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



Skyscanner

APPSTORE URL: <a href="https://apps.apple.com/us/app/skyscanner-travel-deals/id415488524">https://apps.apple.com/us/app/skyscanner-travel-deals/id415488524</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Documents/	MiniEvents.sqlite	SQLite
/Documents/	WatchedFlights/	JSON
/Library/Caches/	com.hackemist.SDImageCache/default/	*
/Library/Caches/	com.hackemist.SDImageCache/default/	Cache.db
/Library/Caches/	net.skyscanner.iphone/	SQLite
/Library/Caches/	net.skyscanner.iphone/	*
/Library/Preferences/	net.skyscanner.iphone.plist	Plist



Tripadvisor

APPSTORE URL: <a href="https://apps.apple.com/us/app/tripadvisor-hotels-vacation/id284876795">https://apps.apple.com/us/app/tripadvisor-hotels-vacation/id284876795</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Documents/	FSQPVisStoreLocations.archive	Plist
/Documents/	geo_recents	Plist
/Documents/	logged_in_user_info	Plist
/Documents/	shortlist	Plist
/Documents/	trip-journal.sqlite	SQLite
/Documents/	TripAdvisor-Preferences.plist	Plist
/Documents/	typeshead_recents	Plist
/Documents/	inbox/	SQLite
/Library/Caches/	com.tripadvisor.LocalPicks/fsCachedData/	*
/Library/Caches/	com.tripadvisor.LocalPicks/	JSON
/Library/Preferences/	com.tripadvisor.LocalPicks.plist	Plist



Uber

APPSTORE URL: <a href="https://apps.apple.com/us/app/uber/id36867368">https://apps.apple.com/us/app/uber/id36867368</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Documents/	database.db	SQLite
/Library/Application Support/	com.uberab.UberClient/	Various
/Library/Application Support/	com.uberab.UberClient/	JSON
/Library/Application Support/	Persistent Storage/BootstrapStore/Realtime RiderStreamModelKey/	
/Library/Application Support/	Persistent Storage/Store/PaymentFoundation.PaymentStreamModelKey/	eyeball
/Library/Application Support/	Persistent Storage/BootstrapStore/Realtime RiderStreamModelKey/	profiles
/Library/Caches/	com.uberab.UberClient/	*
/Library/Caches/	com.uberab.UberClient/	Various
/Library/Preferences/	com.uberab.UberClient.plist	Plist



Waze

APPSTORE URL: <a href="https://apps.apple.com/us/app/waze-navigation-live-traffic/id32329106">https://apps.apple.com/us/app/waze-navigation-live-traffic/id32329106</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		
Internal App Path	File Name	File Type
/Document/	user	TXT
/Document/	session	TXT
/Document/	preferences	TXT
/Document/	user.db	SQLite
/Library/Preferences/	com.waze.iphone.plist	Plist



Dust

APPSTORE URL: <a href="https://apps.apple.com/us/app/dust-a-safer-place-to-text/id690758616">https://apps.apple.com/us/app/dust-a-safer-place-to-text/id690758616</a>		
/private/var/mobile/Containers/Data/Application/<APP_GUID>		



