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# Frida逆向实例和工具函数

- 最新版本: v1.3.0
- 更新时间: 20240726

## 简介

整理Frida逆向期间涉及到的各种实际案例，以及整理出的各种工具类函数。其中Frida的实际使用案例，包括网上别人的实例案例，包括官网的Cdeshare，以及frida和frida-trace。frida中包括iOS的ObjC的各种例子。包括Object对象的methods和ownMethods，以及用Interceptor去hook函数的，单个类的单个函数、单个类的所有函数、所有类的所有函数等。以及ApiResolver的案例以及Stalker的案例，尤其是`__lldb_unnamed_symbol2575$$akd`的完整代码；接着是frida-trace的实际例子，包括ObjC的akd中Apple账号验证过程、Preferences中Apple账号登录全过程的详细内容。

## 源码+浏览+下载

本书的各种源码、在线浏览地址、多种格式文件下载如下：

### HonKit源码

- [crifan/frida\\_re\\_example\\_function](#): Frida逆向实例和工具函数

### 如何使用此HonKit源码去生成发布为电子书

详见：[crifan/honkit\\_template: demo how to use crifan honkit template and demo](#)

## 在线浏览

- [Frida逆向实例和工具函数 book.crifan.org](#)
- [Frida逆向实例和工具函数 crifan.github.io](#)

## 离线下载阅读

- [Frida逆向实例和工具函数 PDF](#)
- [Frida逆向实例和工具函数 ePUB](#)
- [Frida逆向实例和工具函数 MOBI](#)

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各种技术类教程，仅作为学习和研究使用。请勿用于任何非法用途。如有非法用途，均与本人无关。

## 鸣谢

感谢我的老婆陈雪的包容理解和悉心照料，才使得我 crifan 有更多精力去专注技术专研和整理归纳出这些电子书和技术教程，特此鸣谢。

## 其他

### 作者的其他电子书

本人 crifan 还写了其他 150+ 本电子书教程，感兴趣可移步至：

[crifan/crifan\\_ebook\\_readme: Crifan的电子书的使用说明](#)

## 关于作者

关于作者更多介绍，详见：

[关于CrifanLi李茂 – 在路上](#)

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## 概览

Frida逆向期间，涉及到各种各种实际案例，以及整理出各种常用的工具类函数。整理至此，供参考。

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# Frida逆向实例

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## Frida实例之代码段

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## Frida官网

- Frida官网
  - (Frida作者) oleavr写的，实例代码
    - [oleavr/frida-agent-example: Example Frida agent written in TypeScript](#)
  - [frida-presentations](#)

## Frida Codeshare

由于Frida功能太强大，使得用的人很多，出现了很多用法和案例。官网专门做了个代码分享平台，列出了不同人的不用用法供大家参考，叫做：

- Frida CodeShare
  - 概述：The Frida CodeShare project is comprised of developers from around the world working together with one goal - push Frida to its limits in new and innovative ways.
  - 列表页面
    - [Frida CodeShare BROWSE CODE](#)

下面列出一些，相对常用的案例：

- iOS工具类
  - [Project: iOS Utils](#)
- 绕过证书校验
  - [Project: iOS SSL Bypass](#)

## 如何利用Frida codeshare的代码

除了拷贝代码放到自己 `js` 文件中之外，还可以直接引用：

直接调用分享的代码：

```
frida --codeshare <frida_codeshare_url_without_url_prefix> -f <YOUR_BINARY>
```

- 举例
  - ios-utils
 

```
frida --codeshare lichao890427/ios-utils -f <YOUR_BINARY>
```

    - 对应URL是：<https://codeshare.frida.re/@lichao890427/ios-utils/>
  - dump-ios
 

```
frida --codeshare lichao890427/dump-ios -f <YOUR_BINARY>
```



## 网上别人的案例

- 网上的别人的Frida的使用案例
  - [Frida在iOS平台进行OC函数hook的常用方法 | 8Biiit's Blog](#)

## lich4/personal\_script

- [personal\\_script/Frida\\_script at master · lich4/personal\\_script · GitHub](#)
  - ios\_utils
    - [https://github.com/lich4/personal\\_script/blob/master/Frida\\_script/ios\\_utils.js](https://github.com/lich4/personal_script/blob/master/Frida_script/ios_utils.js)
  - antijailbreak
    - [https://github.com/lich4/personal\\_script/blob/master/Frida\\_script/antijailbreak.js](https://github.com/lich4/personal_script/blob/master/Frida_script/antijailbreak.js)
  - getdeviceinfo
    - [https://github.com/lich4/personal\\_script/blob/master/Frida\\_script/getdeviceinfo.js](https://github.com/lich4/personal_script/blob/master/Frida_script/getdeviceinfo.js)
  - ios\_dump
    - [https://github.com/lich4/personal\\_script/blob/master/Frida\\_script/ios\\_dump.js](https://github.com/lich4/personal_script/blob/master/Frida_script/ios_dump.js)
  - recvfrom
    - [https://github.com/lich4/personal\\_script/blob/master/Frida\\_script/recvfrom.js](https://github.com/lich4/personal_script/blob/master/Frida_script/recvfrom.js)
  - sendto
    - [https://github.com/lich4/personal\\_script/blob/master/Frida\\_script/sendto.js](https://github.com/lich4/personal_script/blob/master/Frida_script/sendto.js)
  - android\_hook\_detect
    - [https://github.com/lich4/personal\\_script/blob/master/Frida\\_script/android\\_hook\\_detect.js](https://github.com/lich4/personal_script/blob/master/Frida_script/android_hook_detect.js)

## noobpk/frida-ios-hook

- [frida-ios-hook/frida-scripts](#)
  - ssl pinning
    - <https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/bypass-ssl-ios13.js>
  - class + method
    - find
      - <https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/find-all-classes-methods.js>
      - <https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/find-all-classes.js>
      - <https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/find-app-classes-methods.js>
      - <https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/find-app-classes.js>
      - <https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/find-specific-method.js>
    - hook
      - <https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/hook-all-methods-of-all-classes-app-only.js>

- <https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/hook-all-methods-of-specific-class.js>
- <https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/hook-specific-method-of-class.js>
- dump=show
  - <https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/show-all-methods-of-specific-class.js>

## 0xdeaf/ Frida-scripts

- 0xdeaf/ Frida-scripts
  - [https://github.com/0xdeaf/frida-scripts/blob/master/raptor\\_frida\\_android\\_enum.js](https://github.com/0xdeaf/frida-scripts/blob/master/raptor_frida_android_enum.js)
  - [https://github.com/0xdeaf/frida-scripts/blob/master/raptor\\_frida\\_android\\_trace.js](https://github.com/0xdeaf/frida-scripts/blob/master/raptor_frida_android_trace.js)

## poxyran/misc

- 用frida实现各种功能
  - [misc/frida-read-process-memory.py at master · poxyran/misc · GitHub](#)
    - counts the number of basic blocks
      - [misc/count\\_func\\_bb.py](#)
    - enumerate-imports
      - [misc/frida-enumerate-imports.py](#)
    - enumerate-modules
      - [misc/frida-enumerate-modules.py](#)
    - heap-trace
      - [misc/frida-heap-trace.py](#)
    - memory-scan
      - [misc/frida-memory-scan.py](#)
    - read-process-memory
      - [misc/frida-read-process-memory.py](#)
    - write-process-memory
      - [misc/frida-write-process-memory.py](#)
    - frida-stalker-example
      - [misc/frida-stalker-example.py](#)

## iddoeldor/frida-snippets

- [frida-snippets/README.md at master · iddoeldor/frida-snippets · GitHub](#)
  - Native
    - Load C/C++ module
    - One time watchpoint
    - Socket activity
    - Intercept open
    - Execute shell command
    - List modules

- Log SQLite query
- Log method arguments
- Intercept entire module
- Dump memory segments
- Memory scan
- Stalker
- Cpp Demangler
- Early hook
- Android
  - Binder transactions
  - Get system property
  - Reveal manually registered native symbols
  - Enumerate loaded classes
  - Class description
  - Turn WiFi off
  - Set proxy
  - Get IMEI
  - Hook io InputStream
  - Android make Toast
  - Await for specific module to load
  - Webview URLs
  - Print all runtime strings & stacktrace
  - String comparison
  - Hook JNI by address
  - Hook constructor
  - Hook Java reflection
  - Trace class
  - Hooking Unity3d
  - Get Android ID
  - Change location
  - Bypass FLAG\_SECURE
  - Shared Preferences update
  - Hook all method overloads
  - Register broadcast receiver
  - Increase step count
  - File system access hook \$ frida --codeshare FrenchYeti/android-file-system-access-hook -f com.example.app --no-pause
  - How to remove/disable java hooks ? Assign null to the implementation property.
- iOS
  - OS Log
  - iOS alert box
  - File access
  - Observe class
  - Find application UUID
  - Extract cookies
  - Describe class members

- Class hierarchy
- Hook refelaction
- Device properties
- Take screenshot
- Log SSH commands
- Windows
- Sublime snippets
- Vim snippets
- JEB

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# frida

此处介绍使用 `frida` 命令去调试的实际案例，供参考。

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## iOS的ObjC

此处贴出用 frida 去调试各种 ios 的 objc 的类和函数的实际案例，供参考。

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# ObjC的Object

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## \$methods和\$ownMethods

### NSXPConnection

对于 ObjC 的 NSXPConnection 的实例对象:

```
argSelfObj: NSXPConnection: 0x154d09250 connection from pid 46847 on mach service named com.apple.ak.auth.xpc
```

### NSXPConnection 的 \$methods

代码:

```
const connMethods = argSelfObj.$methods;
console.log("connMethods=", connMethods);
```

输出:

```
connMethods= + geo_createGEODaemonToMapsPushDaemonConnection, + geo_withMapsPushDaemon:errorHandler:, + beginTransaction, + endTransaction, + _handoffCurrentReplyToQueue:block:, + currentConnection, + fromPBCodable:, + CKSQLiteClassName, + CA_automaticallyNotifiesObservers:, + CA_setterForProperty:, + CA_getterForProperty:, + CA_encodesPropertyConditionally:type:, + CA_CAMLPropertyForKey:, + version, + load, + implementsSelector:, + instancesImplementSelector:, + setVersion:, + accessInstanceVariablesDirectly, + automaticallyNotifiesOb serversForKey:, + _createMutableOrderedSetValueGetterWithContainerClassID:key:, + cancelP reviousPerformRequestsWithTarget:selector:object:, + _createMutableArrayValueGetterWithC ontainerClassID:key:, + setKeys:triggerChangeNotificationsForDependentKey:, + _createMut ableSetValueGetterWithContainerClassID:key:, + _createOtherValueGetterWithContainerClassI D:key:, + _createOtherValueSetterWithContainerClassID:key:, + _createValuePrimitiveGetter WithContainerClassID:key:, + _createValuePrimitiveSetterWithContainerClassID:key:, + repl acementObjectForPortCoder:, + cancelPreviousPerformRequestsWithTarget:, + _createValueGet terWithContainerClassID:key:, + _createValueSetterWithContainerClassID:key:, + _shouldAddObservationForwardersForKey:, + _keysForValuesAffectingValueForKey:, + classForKeyedUnarc hiver, + keyPathsForValuesAffectingValueForKey:, + classFallbacksForKeyedArchiver, + SFSQL iteClassName, + _copyDescription, + doesNotRecognizeSelector:, + __allocWithZone_OA:, + instanceMethodSignatureForSelector:, + methodSignatureForSelector:, + init, + description, + d ealloc, + supportsBSXPCSecureCoding, + bs_isPlistableType, + bs_dataFromObject:, + bs_secur eObjectFromData:ofClass:, + bs_secureObjectFromData:ofClasses:, + bs_objectFromData:, + bs _decodedFromData:, + bs_secureDataFromObject:, + bs_secureDecodedFromData:, + bs_secureDec odedFromData:withAdditionalClasses:, + supportsRBSXPCSecureCoding, + new, + self, + allocWithZone:, + superclass, + initialize, + performSelector:withObject:, + performSelector:withObject:withObject:, + performSelector:, + zone, + autorelease, + isSubclassOfClass:, + _isDeallocating, + isMemberOfClass:, + allowsWeakReference, + alloc, + isEqual:, + isKindOfClass:, + retainWeakReference, + retain, + retainCount, + instancesRespondToSelector:, + hash, + mutableCopyWithZone:, + forwardingTargetForSelector:, + resolveInstanceMethod:, + mutableCopy , + methodForSelector:, + instanceMethodForSelector:, + release, + respondsToSelector:, + isAncestorOfObject:, + _tryRetain, + debugDescription, + conformsToProtocol:, + class, + resol veClassMethod:, + copy, + copyWithZone:, + forwardInvocation:, + isProxy, + isFault, + topBPC ovable, + _intents_compareValue:relation:, + _intents_readableSubtitleWithLocalizer:meta data:, + descriptionAtIndent:, + _intents_enumerateObjectsOfClass:withBlock:, + _intents_isV
```

```

alidKey:, + _setterForProperty:, + _intents_indexingRepresentation, + _intents_readableTit
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readableSubtitleForLanguage:withMetadata:, + _intents_displayImageWithLocalizer:, + _inte
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eTitleWithLocalizer:, + _intents_readableSubtitleWithLocalizer:, + _intents_readableSubti
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e:, + _intents_localizedCopyForLanguage:, + _intents_readableDescriptionForLanguage:, + _i
ntents_readableDescriptionForLanguage:withMetadata:, + _intents_readableDescriptionwithL
ocalizer:, + _intents_readableDescriptionWithLocalizer:metadata:, + ifSetValueIfNonNil:f
orKey:, + ifSetValueIfYES:ForKey:, + stringValueSafe:, + utf8ValueSafe:, + boolValueSafe,
+ boolValueSafe:, + int64ValueSafe:, + int64ValueSafe:, + doubleValueSafe:, + doubleValueSafe:
+, + stringValueSafe:, + utf8ValueSafe:, + CKDescriptionPropertiesWithPublic:private:shouldEx
pand:, + CKDescription, + CKUnredactedDescription, + CKRedactedDescription, + CKDescription
Redact:avoidShortDescription:, + CKObjectDescriptionRedact:avoidShortDescription:, + CKOb
jectDescriptionRedact:, + ck_bindInStatementAtIndex:, + CKAssignToContainerWithID:, + CKS
ingleLineDescription, + _CKDescriptionWithExpansion:, + CKExpandedDescription, + CKPropert
iesDescriptionStringFromProperties:, + CKHashedDescription, + CKPropertiesDescription, + C
A_validateValue:ForKey:, + CA_copyRenderValue, + CAMLTypeForKey:, + encodeWithCAMLWriter:
+, + CA_distanceToValue:, + CA_interpolateValues:::interpolator:, + CA_interpolateValue:byFr
action:, + CAMLType, + CA_copyNumericValue:, + CA_archivingValueForKey:, + CA_copyRenderVal
ueWithColorspace:, + CA_addValue:multipliedBy:, + CA_roundToIntegerFromValue:, + CAMLTypeS
upportedForKey:, + CA_prepareRenderValue, + carpf_registerObserverForKeyPath:options:hand
ler:, + _allowsDirectEncoding, + awakeAfterUsingCoder:, + classForCoder, + replacementObjec
tForCoder:, + removeObserverForKeyPath:, + removeObservation:, + _isKVOA, + _changeValueFo
rKeys:count:maybeOldValuesDict:maybeNewValuesDict:usingBlock:, + setObservationInfo:, + w
illChangeValueForKey:, + _didChangeValuesForKeys:, + _willChangeValuesForKeys:, + valueFor
UndefinedKey:, + addObserver:ForKeyPath:options:context:, + setValue:ForKey:, + performSel
ectorOnMainThread:withObject:waitUntilDone:modes:, + performSelector:onThread:withObject
:waitUntilDone:modes:, + dictionaryWithValuesForKeys:, + didChangeValueForKey:withSetMutat
ion:usingObjects:, + valueForKeyPath:, + performSelector:onThread:withObject:waitUntilDo
ne:, + classForKeyedArchiver, + _notifyObserversOfChangeFromValuesForKeys:toValuesForKeys
:, + _observerStorageOfSize:, + willChangeValueForKey:withSetMutation:usingObjects:, + per
formSelectorOnMainThread:withObject:waitUntilDone:, + didChangeValueForKey:, + setNilValu
eForKey:, + _pendingChangeNotificationsArrayForKey:create:, + removeObservation:forObserv
ableKeyPath:, + performSelector:withObject:afterDelay:inModes:, + classForPortCoder, + per
formSelectorInBackground:withObject:, + finishObserving, + _addObserver:forProperty:optio
ns:context:, + observationInfo, + willChange:valuesAtIndexes:ForKey:, + classForArchiver,
+ _notifyObserversForKeyPath:change:, + _changeValueForKey:key:key:usingBlock:, + addObser
verBlock:, + _observerStorage, + setObservation:forObservingKeyPath:, + mutableOrderedSetV
alueForKeyPath:, + addObserver:forObservableKeyPath:, + performSelector:object:afterDelay
:, + setValuesForKeysWithDictionary:, + performSelector:withObject:afterDelay:, + didChang
e:valuesAtIndexes:ForKey:, + _destroyObserverList, + addChainedObservers:, + valueForKey:
+, + validateValue:ForKeyPath:error:, + mutableArrayValueForKeyPath:, + _receiveBox:, + recei
veObservedError:, + mutableSetValueForKeyPath:, + _isToManyChangeInformation, + replacemen
tObjectForKeyedArchiver:, + _overrideUseFastBlockObservers, + addObservationTransformer:
+, + addObserver:, + mutableSetValueForKey:, + _changeValueForKey:usingBlock:, + mutableArray
ValueForKey:, + _didEndKeyValueObserving, + _implicitObservationInfo, + replacementObjectF
orArchiver:, + _removeObserver:forProperty:, + validateValue:ForKey:error:, + autoContentA
ccessingProxy, + observeValueForKeyPath:ofObject:change:context:, + _willBeginKeyValueObs
erving, + mutableOrderedSetValueForKey:, + removeObserverForKeyPath:context:, + setValue:
ForKeyPath:, + receiveObservedValue:, + setValue:forUndefinedKey:, + isNSSet__, + isNSStrin
g__, + isNSDate__, + isNSNumber__, + isNSData__, + isNSObject__, + isArray__, + isNSValue__
, + isNSTimeZone__, + isNSOrderedSet__, + isNSDictionary__, + _cfTypeID, + isNSCFConstantStr
ing__, + _release_OA, + _retain_OA, + _tryRetain_OA, + _dealloc_zombie, + _autorelease
_OA, + bs_secureEncoded, + bs_encoded, + NSRepresentation, + RBSIsXPCObject, + pep_onMainThr
ead, + pep_onThread:, + pep_onThread:immediateForMatchingThread:, + pep_onOperationQueue:p

```

```

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getInvocation:+ isNull,+ performSelector:withObject:afterDelay:ignoreMenuTracking:+ __
_im_afterDelay:+ __im_afterDelay:modes:+ __im_onThread:+ __im_onMainThread,+ __im_on
Thread:immediateForMatchingThread:+ __im_onMainThreadIfNecessary,+ __im_onDetachedThre
ad,+ __im_getInvocation:+ un_safeBoolValue,+ finalize,- cuValueForEntitlementNoCache:,-
uniquify,- hasEntitlement:,- shouldHandleInvalidation,- setShouldHandleInvalidation:,-
_EX_transaction,- _EX_setTransaction:,- _EX_extensionProcess,- _EX_setExtensionProces
s:,- addBarrierBlock:,- serviceName,- initWithMachServiceName:options:,- _sendInvocatio
n:orArguments:count:methodSignature:selector:withProxy:,- setUserInfo:,- setOptions:,-
effectiveGroupIdentifier,- setExportedObject:,- remoteObjectProxy,- userInfo,- interrup
tionHandler,- start,- remoteObjectProxyWithTimeout:errorHandler:,- _setQueue:,- _decode
AndInvokeReplyBlockWithEvent:sequence:replyInfo:,- _setUUID:,- initWithMachServiceName:-
invalidate,- exportedObject,- initWithServiceName:options:,- exportedInterface,- act
ivate,- _xpcConnection,- init,- invalidationHandler,- _queue,- setRemoteObjectInterface
:,- _unboostingRemoteObjectProxy,- setExportedInterface:,- initWithEndpoint:,- synchron
ousRemoteObjectProxyWithErrorHandler:,- _sendSelector:withProxy:arg1:arg2:arg3:arg4:,-
_decodeAndInvokeMessageWithEvent:flags:,- _sendSelector:withProxy:arg1:arg2:arg3:,- _in
itWithRemoteService:name:options:mode:,- delegate,- set_additionalInvalidationHandler:,-
_initWithRemoteService:name:options:,- resume,- _setLanguages:,- _decodeProgressMessa
geWithData:flags:,- remoteObjectProxyWithUserInfo:errorHandler:,- valueForEntitlement:,-
_pauseProgress:,- initWithServiceName:,- auditSessionIdentifier,- setInterruptionHand
ler:,- setInvalidationHandler:,- _cancelProgress:,- _resumeProgress:,- _killConnection:,-
_sendSelector:withProxy:arg1:arg2:,- _errorDescription,- suspend,- stop,- replace
tObjectForEncoder:object:,- _sendDesistForProxy:,- remoteObjectProxyWithErrorHandler:,-
_initWithRemoteConnection:name:,- effectiveUserIdentifer,- _additionalInvalidationHan
dler,- _sendSelector:withProxy:arg1:,- _remoteObjectInterfaceClass,- _sendSelector:with
Proxy:,- _setBootstrapObject:forKey:,- scheduleSendBarrierBlock:,- _initWithCustomTrans
port:,- auditToken,- _setTargetUserIdentifer:,- remoteObjectInterface,- setDelegate:,-
description,- initWithListenerEndpoint:,- dealloc,- processIdentifier,- endpoint,- toP
BCodable,- _intents_COMPAREValue:relation:,- _intents_readableSubtitleWithLocalizer:met
adata:,- descriptionAtIndent:,- _intents_enumerateObjectsOfClass:withBlock:,- _intents_
isValidKey:,- _setterForProperty:,- _intents_indexingRepresentation,- _intents_readable
TitleWithLocalizer:metadata:,- _intents_readableTitleForLanguage:withMetadata:,- _inten
ts_readableSubtitleForLanguage:withMetadata:,- _intents_displayImageWithLocalizer:,- _i
ntents_localizedCopyWithLocalizer:,- _intents_readableTitleForLanguage:,- _intents_read
ableTitleWithLocalizer:,- _intents_readableSubtitleWithLocalizer:,- _intents_readableSu
btitleForLanguage:,- _intents_displayImageForLanguage:,- _intents_setterForPropertyWith
Name:,- _intents_localizedCopyForLanguage:,- _intents_readableDescriptionForLanguage:,-
_intents_readableDescriptionForLanguage:withMetadata:,- _intents_readableDescriptionWi
thLocalizer:,- _intents_readableDescriptionWithLocalizer:metadata:,- ifSetValueIfNonNi
l:ForKey:,- ifSetValueIfYES:ForKey:,- stringValueSafe:,- utf8ValueSafe:,- boolValueSaf
e,- boolValueSafe:,- int64ValueSafe,- int64ValueSafe:,- doubleValueSafe,- doubleValueSa
fe,- stringValueSafe,- utf8ValueSafe,- CKDescriptionPropertiesWithPublic:private:shou
dExpand:,- CKDescription,- CKUnredactedDescription,- CKRedactedDescription,- CKDescript
ionRedact:avoidShortDescription:,- CKObjectDescriptionRedact:avoidShortDescription:,- C
KObjectDescriptionRedact:,- ck_bindInStatementAtIndex:,- CKAssignToContainerWithID:,-
CKSingleLineDescription,- _CKDescriptionWithExpansion:,- CKExpandedDescription,- CKProp
ertiesDescriptionStringFromProperties:,- CKHashedDescription,- CKPropertiesDescription,
- CA_validateValue:ForKey:,- CA_copyRenderValue,- CAMLTypeForKey:,- encodeWithCAMLWrit
er:,- CA_distanceToValue:,- CA_interpolateValues:::interpolator:,- CA_interpolateValue:b
yFraction:,- CAMLType,- CA_copyNumericValue:,- CA_archivingValueForKey:,- CA_copyRender
ValueWithColorspace:,- CA_addValue:multipliedBy:,- CA_roundToIntegerFromValue:,- CAMLTy
peSupportedForKey:,- CA_prepareRenderValue,- carpf_registerObserverForKeyPath:options:h
andler:,- _allowsDirectEncoding,- awakeAfterUsingCoder:,- classForCoder,- implementsSel
ector:,- replacementObjectForCoder:,- removeObserver:ForKeyPath:,- removeObservation:,-
_isKVOA,- _changeValueForKeys:count:maybeOldValuesDict:maybeNewValuesDict:usingBlock:,

```

```

- setObservationInfo:, - willChangeValueForKey:, - _didChangeValuesForKeys:, - _willChange
ValuesForKeys:, - valueForKey:, - addObserver:forKeyPath:options:context:, - setValue
ForKey:, - performSelectorOnMainThread:withObject:waitUntilDone:modes:, - performSel
ector:onThread:withObject:waitUntilDone:modes:, - dictionaryWithValuesForKeys:, - didChan
geValueForKey:withSetMutation:usingObjects:, - valueForKeyPath:, - performSelector:onThre
ad:withObject:waitUntilDone:, - classForKeyedArchiver, - _notifyObserversOfChangeFromValu
esForKeys:toValuesForKeys:, - _observerStorageOfSize:, - willChangeValueForKey:withSetMut
ation:usingObjects:, - performSelectorOnMainThread:withObject:waitUntilDone:, - didChange
ValueForKey:, - setNilValueForKey:, - replacementObjectForPortCoder:, - _pendingChangeNoti
ficationsArrayForKey:create:, - removeObservation:forObservableKeyPath:, - performSelecto
r:withObject:afterDelay:inModes:, - classForPortCoder, - performSelectorInBackground:with
Object:, - finishObserving, - _addObserver:forProperty:options:context:, - observationInfo
, - willChange:valuesAtIndexes:forKey:, - classForArchiver, - _notifyObserversForKeyPath:c
hange:, - _changeValueForKey:key:key:usingBlock:, - addObserverBlock:, - _observerStorage,
- setObservation:forObservingKeyPath:, - mutableOrderedSetValueForKeyPath:, - addObserver
:forObservableKeyPath:, - performSelector:object:afterDelay:, - setValuesForKeysWithDicti
onary:, - performSelector:withObject:afterDelay:, - didChange:valuesAtIndexes:forKey:, - _d
estroyObserverList, - addChainedObservers:, - valueForKey:, - validateValue:forKeyPath:er
ror:, - mutableArrayValueForKeyPath:, - _receiveBox:, - receiveObservedError:, - mutableSet
ValueForKeyPath:, - _isToManyChangeInformation, - replacementObjectForKeyedArchiver:, - _o
verrideUseFastBlockObservers, - addObservationTransformer:, - addObserver:, - mutableSetValue
ForKey:, - _changeValueForKey:usingBlock:, - mutableArrayValueForKey:, - _didEndKeyValue
Observing, - _implicitObservationInfo, - replacementObjectForArchiver:, - _removeObserver
:forProperty:, - validateValue:forKey:error:, - autoContentAccessingProxy, - observeValueF
orKeyPath:ofObject:change:context:, - _willBeginKeyValueObserving, - mutableOrderedSetValue
ForKey:, - removeObserver:forKeyPath:context:, - setValue:forKeyPath:, - receiveObserved
Value:, - setValue:forUndefinedKey:, - isNSSet__, - isNSString__, - isNSDate__, - isNSNumber
__, - isNSData__, - isNSObject__, - isNSArray__, - isNSValue__, - isNSTimeZone__, - isNSOrder
edSet__, - isNSDictionary__, - _cfTypeID, - isNSCFConstantString__, - _release_OA, - _retai
n_OA, - _copyDescription, - __tryRetain_OA, - doesNotRecognizeSelector:, - _dealloc_zomb
ie, - __autorelease_OA, - methodSignatureForSelector:, - bs_secureEncoded, - bs_encoded, - s
upportsRBSXPCSecureCoding, - bs_isPlistableType, - NSRepresentation, - RBSIsXPCObject, - sup
portsRBSXPCSecureCoding, - pep_onMainThread, - pep_onThread:, - pep_onThread:immediateForM
atchingThread:, - pep_onOperationQueue:priority:, - pep_onMainThreadIfNecessary, - pep_aft
erDelay:, - pep_onOperationQueue:, - pep_getInvocation:, - isNull, - performSelector:withOb
ject:afterDelay:ignoreMenuTracking:, - __im_afterDelay:, - __im_afterDelay:modes:, - __im_
onThread:, - __im_onMainThread, - __im_onThread:immediateForMatchingThread:, - __im_onMain
ThreadIfNecessary, - __im_onDetachedThread, - __im_getInvocation:, - un_safeBoolValue, - se
lf, - superclass, - performSelector:withObject:, - performSelector:withObject:withObject:, -
performSelector:, - zone, - autorelease, - finalize, - _isDeallocating, - isMemberOfClass:
, - allowsWeakReference, - isEqual:, - isKindOfClass:, - retainWeakReference, - retain, - ret
ainCount, - hash, - forwardingTargetForSelector:, - mutableCopy, - methodForSelector:, - rel
ease, - respondsToSelector:, - _tryRetain, - debugDescription, - conformsToProtocol:, - clas
s, - copy, - forwardInvocation:, - isProxy, - isFault

```

格式化后：

```

+ geo_createGEODaemonToMapsPushDaemonConnection
+ geo_withMapsPushDaemon:errorHandler:
+ beginTransaction
+ endTransaction
+ _handoffCurrentReplyToQueue:block:
+ currentConnection
+ fromPBCodable:
...

```

```

...
- respondsToSelector:
- _tryRetain
- debugDescription
- conformsToProtocol:
- class
- copy
- forwardInvocation:
- isProxy
- isFault

```

## AKAppleIDAuthenticationService 的 \$ownMethods

代码:

```

const connOwnMethods = argSelfObj.$ownMethods;
console.log("connOwnMethods=", connOwnMethods);

```

输出:

```

connOwnMethods= + geo_createGEODaemonToMapsPushDaemonConnection,+ geo_withMapsPushDaemon:errorHandler:,+ beginTransaction,+ endTransaction,+ _handoffCurrentReplyToQueue:block:,+ currentConnection,- cuValueForEntitlementNoCache:,- uniquify,- hasEntitlement:,- shouldHandleInvalidation,- setShouldHandleInvalidation:,- _EX_transaction,- _EX_setTransaction:,- _EX_extensionProcess,- _EX_setExtensionProcess:,- addBarrierBlock:,- serviceName,- initWithMachServiceName:options:,- _sendInvocation:orArguments:count:methodSignature:selector:withProxy:,- setUserInfo:,- setOptions:,- effectiveGroupIdentifier,- setExportedObject:,- remoteObjectProxy,- userInfo,- interruptionHandler,- start,- remoteObjectProxyWithTimeout:errorHandler:,- _setQueue:,- _decodeAndInvokeReplyBlockWithEvent:sequence:replyInfo:,- _setUUID:,- initWithMachServiceName:,- invalidate,- exportedObject,- initWithServiceName:options:,- exportedInterface,- activate,- _xpcConnection,- init,- invalidationHandler,- _queue,- setRemoteObjectInterface:,- _unboostingRemoteObjectProxy,- setExportedInterface:,- initWithEndpoint:,- synchronousRemoteObjectProxyWithErrorHandler:,- _sendSelector:withProxy:arg1:arg2:arg3:arg4:,- _decodeAndInvokeMessageWithEvent:flags:,- _sendSelector:withProxy:arg1:arg2:arg3:,- _initWithRemoteService:name:options:mode:,- delegate,- set_additionalInvalidationHandler:,- _initWithRemoteService:name:options:,- resume,- _setLanguages:,- _decodeProgressMessageWithData:flags:,- remoteObjectProxyWithUserInfo:errorHandler:,- valueForEntitlement:,- _pauseProgress:,- initWithServiceName:,- auditSessionIdentifier,- setInterruptionHandler:,- setInvalidationHandler:,- _cancelProgress:,- _resumeProgress:,- _killConnection:,- _sendSelector:withProxy:arg1:arg2:,- _errorDescription,- suspend,- stop,- replacementObjectForEncoder:object:,- _sendDesistForProxy:,- remoteObjectProxyWithErrorHandler:,- _initWithRemoteConnection:name:,- effectiveUserIdentity,- _additionalInvalidationHandler,- _sendSelector:withProxy:arg1:,- _remoteObjectInterfaceClass,- _sendSelector:withProxy:,- _setBootstrapObject:forKey:,- scheduleSendBarrierBlock:,- _initWithCustomTransport:,- auditToken,- _setTargetUserIdentifier:,- remoteObjectInterface,- setDelegate:,- description,- initWithListenerEndpoint:,- dealloc,- processIdentifier,- endpoint

```

格式化后:

```
+ geo_createGEODaemonToMapsPushDaemonConnection
```

```
+ geo_withMapsPushDaemon:errorHandler:
+ beginTransaction
+ endTransaction
+ _handoffCurrentReplyToQueue:block:
+ currentConnection
- cuValueForEntitlementNoCache:
- uniquify
- hasEntitlement:
- shouldHandleInvalidation
- setShouldHandleInvalidation:
- _EX_transaction
- _EX_setTransaction:
- _EX_extensionProcess
- _EX_setExtensionProcess:
- addBarrierBlock:
- serviceName
- initWithMachServiceName:options:
- _sendInvocation:orArguments:count:methodSignature:selector:withProxy:
- setUserInfo:
- setOptions:
- effectiveGroupIdentifier
- setExportedObject:
- remoteObjectProxy
- userInfo
- interruptionHandler
- start
- remoteObjectProxyWithTimeout:errorHandler:
- _setQueue:
- _decodeAndInvokeReplyBlockWithEvent:sequence:replyInfo:
- _setUUID:
- initWithMachServiceName:
- invalidate
- exportedObject
- initWithServiceName:options:
- exportedInterface
- activate
- _xpcConnection
- init
- invalidationHandler
- _queue
- setRemoteObjectInterface:
- _unboostingRemoteObjectProxy
- setExportedInterface:
- initWithEndpoint:
- synchronousRemoteObjectProxyWithErrorHandler:
- _sendSelector:withProxy:arg1:arg2:arg3:arg4:
- _decodeAndInvokeMessageWithEvent:flags:
- _sendSelector:withProxy:arg1:arg2:arg3:
- _initWithRemoteService:name:options:mode:
- delegate
- set_additionalInvalidationHandler:
- _initWithRemoteService:name:options:
- resume
- _setLanguages:
- _decodeProgressMessageWithData:flags:
- remoteObjectProxyWithUserInfo:errorHandler:
```

```

- valueForEntitlement:
- _pauseProgress:
- initWithServiceName:
- auditSessionIdentifier
- setInterruptionHandler:
- setInvalidationHandler:
- _cancelProgress:
- _resumeProgress:
- _killConnection:
- _sendSelector:withProxy:arg1:arg2:
- _errorDescription
- suspend
- stop
- replacementObjectForEncoder:object:
- _sendDesistForProxy:
- remoteObjectProxyWithErrorHandler:
- _initWithRemoteConnection:name:
- effectiveUserIdentifier
- _additionalInvalidationHandler
- _sendSelector:withProxy:arg1:
- _remoteObjectInterfaceClass
- _sendSelector:withProxy:
- _setBootstrapObject:forKey:
- scheduleSendBarrierBlock:
- _initWithCustomTransport:
- auditToken
- _setTargetUserIdentifier:
- remoteObjectInterface
- setDelegate:
- description
- initWithListenerEndpoint:
- dealloc
- processIdentifier
- endpoint

```

其中：

- NSXPCCConnection
  - 没有之前Xcode调试所看到的属性
    - processName
    - processBundleIdentifier
  - 不过有我们所重点关注的其他的属性
    - exportedInterface
    - exportedObject
    - remoteObjectInterface
    - remoteObjectProxy
    - auditSessionIdentifier
    - effectiveUserIdentifier
    - effectiveGroupIdentifier
    - userInfo

-》实现了我们通过 \$methods 和 \$ownMethods 去调试 NSXPCCConnection 类的属性值，找到我们所关注的属性值

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## Interceptor=hook函数

此处去介绍如何用Frida的Interceptor去hook拦截iOS的ObjC的函数的实际案例。

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## 单个类的单个函数

Frida去hook调试ObjC函数： - [NSXPConnection setExportedObject:]

- 背景

调试iPhone中的，设置 app中点击Apple账号登录的过程，内部会触发akd进程中的 iOS 的 ObjC 函数：

```
- [NSXPConnection setExportedObject:]
```

此处去写frida的js脚本，去调试hook，打印参数值

涉及到的操作iPhone中的app的页面有：





取消

下一步

# Apple ID

使用 Apple ID 登录以使用 iCloud 和其他  
Apple 服务。

Apple ID 电子邮件或电话

[没有或忘记 Apple ID?](#)



Apple ID 是您用于访问所有 Apple 服务的帐  
户。iCloud 使用无线数据。



您的 Apple ID 信息用于登录时启用 Apple 服务，其中包括 iCloud 云备  
份，该服务可自动备份设备上的数据，以便需要时进行替换或恢复。  
您的设备序列号可能被用于检查服务的使用资格。 [了解数据的管理方  
式...](#)



Apple ID是您用于访问所有Apple服务的帐户。iCloud使用无线数据。



您的Apple ID信息用于登录时启用Apple服务，其中包括iCloud云备份，该服务可自动备份设备上的数据，以便需要时进行替换或恢复。您的设备序列号可能被用于检查服务的使用资格。[了解数据的管理方式....](#)

## 最基础的，hook类的函数，只是打印参数值

- 适用场景：确定要hook的类和函数是：能找到的=是存在的 -> 代码才能正确hook，否则会报错找不到
  - 写法：直接把类名和函数名放到objc.classes的后面
  - 代码

```
const curMethod = ObjC.classes.NSXPCConnection["- setExportedObject:"];
// console.log("curMethod: ", curMethod);
// const iOSObjCallStr = "-[NSXPCConnection setExportedObject:]";

Interceptor.attach(curMethod.implementation, {
  onEnter: function(args) {
    // console.log("===== " + iOSObjCallStr + " =====");
    console.log("argSelf=" + args[0] + ", argSel=" + args[1] + ", realArg
1=" + args[2]);
  }
});
```

```

    }
});

```

- 适用场景：要hook的类和函数，不确定是否存在，所以加上判断
  - 写法：传入类名和函数名，先去查找在不在，找到后，才hook
  - 代码

```

// https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/hook-specific-method-of-class.js
function hook_specific_method_of_class(className, funcName)
{
  // console.log("className=" + className + ", funcName=" + funcName)
  var curClass = ObjC.classes[className];
  if (typeof(curClass) !== 'undefined') {
    var curMethod = curClass[funcName];
    if (typeof(curMethod) !== 'undefined') {
      Interceptor.attach(curMethod.implementation, {
        onEnter: function(args) {
          console.log("argSelf=" + args[0] + ", argSel=" + args[1] + ", realArg1=" + args[2]);
        }
      });
    } else{
      console.log("Can't find method", funcName);
    }
  } else{
    console.log("Can't find class: ", className);
  }
}

//Your class name and function name here
hook_specific_method_of_class("NSXPConnection", "- setExportedObject:")

```

典型输出log：

```

→ scripts frida -U -n akd -l hook_NSXPConnection_setExportedObject.js

Frida 16.0.19 - A world class dynamic instrumentation toolkit
Commands:
help      -> Displays the help system
object?   -> Display information about 'object'
exit quit -> Exit

More info at https://frida.re/docs/home/

Connected to iPhone (id abdc0dd961c3cb96f5c4afe109de4eb48b88433a)

[iPhone: akd ]-> ? resume

=====
===== - [NSXPConnection setExportedObject ] =====

```

```

argSelf 0x102725ce0, argSel 0x19b362b44, realArg1 0x102926640
===== - [NSXPConnection setExportedObject ] =====
argSelf 0x102928300, argSel 0x19b362b44, realArg1 0x1029211b0
===== - [NSXPConnection setExportedObject ] =====
argSelf 0x102725ce0, argSel 0x19b362b44, realArg1 0x0
===== - [NSXPConnection setExportedObject ] =====
argSelf 0x102a21570, argSel 0x19b362b44, realArg1 0x0

```

## 简单优化：加上额外的参数的转换和打印相关值

再去加上额外的，参数类型转换

- 把常见参数转换成ObjC的Object
- 把ObjC的SEL转换成String
- 等等

对应代码是：

```

function hook_specific_method_of_class(className, funcName)
{
    var iOSObjCallStr = "className=" + className + ", funcName=" + funcName
    console.log("iOSObjCallStr=", iOSObjCallStr)
    var curClass = ObjC.classes[className];
    if (typeof(curClass) !== 'undefined') {
        var curMethod = curClass[funcName];
        if (typeof(curMethod) !== 'undefined') {

            Interceptor.attach(curMethod.implementation, {
                onEnter: function(args) {
                    console.log("===== " + iOSObjCallStr + " =====")
                    //

                    // args[0] is self = id
                    const argSelf = args[0];
                    console.log("argSelf: ", argSelf);
                    const argSelfObj = new ObjC.Object(argSelf);
                    console.log("argSelfObj: ", argSelfObj);
                    const argSelfClassName = argSelfObj.$className;
                    console.log("argSelfClassName: ", argSelfClassName);

                    // args[1] is selector
                    const argSel = args[1];
                    console.log("argSel: ", argSel);
                    const argSelStr = ObjC.selectorAsString(argSel);
                    console.log("argSelStr: ", argSelStr);

                    // args[2] holds the first function argument
                    const args2 = args[2];
                    console.log("args2: ", args2);
                    if (args2 != 0x0) {
                        const args2Obj = new ObjC.Object(args2);
                        // const args2Obj = new ObjC.Object(ptr(args2));
                        console.log("args2Obj: ", args2Obj);
                        const args2ObjClassName = args2Obj.$className;
                        console.log("args2ObjClassName: ", args2ObjClassName);

```

```

        const args2ObjStr = args2Obj.toString();
        console.log("args2ObjStr: ", args2ObjStr);
    }
}
);
} else{
    console.log("Can't find method", funcName);
}
} else{
    console.log("Can't find class: ", className);
}
}

//Your class name and function name here
hook_specific_method_of_class("NSXPConnection", "- setExportedObject:")

```

## 优化日志：把Frida类名和函数名转换为ObjC的类名和函数名

可以继续去加上：

- toIOSObjcCall
  - 作用举例
    - 输入： ["NSXPConnection", "- setExportedObject:"]
    - 输出： "-[NSXPConnection setExportedObject:]"
- 目的：实现优化日志打印
  - 输出的ObjC的类和函数名 -》 方便调试和查看具体调用了哪个ObjC的类和函数

代码：

```

// convert from frida function call to ObjC function call
// "NSURL", "- initWithString:" => "-[NSURL initWithString:]"
function toIOSObjcCall(class_name, method_name){
    const instanceCallStart = "-[" + class_name + " ";
    const classCallStart = "+[" + class_name + " ";
    var objcFuncCall = method_name.replace("-", instanceCallStart);
    objcFuncCall = objcFuncCall.replace("+", classCallStart);
    objcFuncCall = objcFuncCall + "]";
    // console.log(class_name + " -> " + method_name + " => " + objcFuncCall);
    return objcFuncCall;
}

function hook_specific_method_of_class(className, funcName)
{
    var iosObjCallStr = toIOSObjcCall(className, funcName)
    console.log("iosObjCallStr=", iosObjCallStr)
    var curClass = ObjC.classes[className];
    if (typeof(curClass) !== 'undefined') {
        var curMethod = curClass[funcName];
        if (typeof(curMethod) !== 'undefined') {
            Interceptor.attach(curMethod implementation, {

```

```

onEnter: function(args) {
    console.log("=====" + 10SObjCallStr + " =====")
;

    // args[0] is self = id
    const argSelf = args[0];
    console.log("argSelf: ", argSelf);
    const argSelfObj = new ObjC.Object(argSelf);
    console.log("argSelfObj: ", argSelfObj);
    const argSelfClassName = argSelfObj.$className;
    console.log("argSelfClassName: ", argSelfClassName);

    // args[1] is selector
    const argSel = args[1];
    console.log("argSel: ", argSel);
    const argSelStr = ObjC.selectorAsString(argSel);
    console.log("argSelStr: ", argSelStr);

    // args[2] holds the first function argument
    const args2 = args[2];
    console.log("args2: ", args2);
    if (args2 != 0x0) {
        const args2Obj = new ObjC.Object(args2);
        // const args2Obj = new ObjC.Object(ptr(args2));
        console.log("args2Obj: ", args2Obj);
        const args2ObjClassName = args2Obj.$className;
        console.log("args2ObjClassName: ", args2ObjClassName);
        const args2ObjStr = args2Obj.toString();
        console.log("args2ObjStr: ", args2ObjStr);
    }
}
);
} else{
    console.log("Can't find method", funcName);
}
} else{
    console.log("Can't find class: ", className);
}

//Your class name and function name here
hook_specific_method_of_class("NSXPCConnection", "- setExportedObject:")

```

## 优化参数：打印函数全部的真正参数

如之前 [ObjC的参数](#) 中的 计算ObjC的函数的真正参数的个数 + 打印全部参数 的实例代码，加到此处，略作调整变成：

```

*****
* Util Functions
*****


/** Function that count occurrences of a substring in a string;
 * @param {String} string
 * @param {String} substr
 * @return {Number} number of occurrences
 */

```

```

* @param {String} subString           The sub string to search for
* @param {Boolean} [allowOverlapping] Optional. (Default:false)
*
* @author Vitim.us https://gist.github.com/victornpb/7736865
* @see Unit Test https://jsfiddle.net/Victornpb/5axuh96u/
* @see https://stackoverflow.com/a/7924240/938822
* @example occurrences("- setExportedObject:", ":") => 1
*/
function occurrences(string, subString, allowOverlapping) {
    // console.log("string=" + string + ",subString=" + subString + ", allowOverlapping=" + allowOverlapping)
    string += "\n";
    subString += "\n";
    if (subString.length <= 0) return (string.length + 1);

    var n = 0,
        pos = 0,
        step = allowOverlapping ? 1 : subString.length;

    while (true) {
        pos = string.indexOf(subString, pos);
        // console.log("pos=" + pos)
        if (pos >= 0) {
            n++;
            pos += step;
        } else break;
    }

    return n;
}

// convert from frida function call to ObjC function call
// "NSURL", "- initWithString:" => "[NSURL initWithString:]"
function toiOSObjccall(class_name, method_name){
    const instanceCallStart = "-[" + class_name + " ";
    const classCallStart = "+[" + class_name + " ";
    var objcFuncCall = method_name.replace("- ", instanceCallStart);
    objcFuncCall = objcFuncCall.replace("+", classCallStart);
    objcFuncCall = objcFuncCall + "]";
    // console.log(class_name + " -> " + method_name + " => " + objcFuncCall);
    return objcFuncCall;
}

/*
* Frida Hook
*/
// https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/hook-specific-method-of-class.js
function hook_specific_method_of_class(className, funcName)
{
    var iOSObjCallStr = toiOSObjccall(className, funcName)
    console.log("iOSObjCallStr=", iOSObjCallStr)
    var curClass = ObjC.classes[className];
    if (typeof(curClass) !== 'undefined') {
        var curMethod = curClass[funcName];

```

```

if (typeof(curMethod) !== 'undefined') {

    Interceptor.attach(curMethod.implementation, {
        onEnter: function(args) {
            console.log("======" + iOSObjCallStr + " =====")
        }

        // args[0] is self = id
        const argSelf = args[0];
        console.log("argSelf: ", argSelf);
        const argSelfObj = new ObjC.Object(argSelf);
        console.log("argSelfObj: ", argSelfObj);
        const argSelfClassName = argSelfObj.$className;
        console.log("argSelfClassName: ", argSelfClassName);

        // args[1] is selector
        const argSel = args[1];
        console.log("argSel: ", argSel);
        const argSelStr = ObjC.selectorAsString(argSel);
        console.log("argSelStr: ", argSelStr);

        const argCount = occurrences(argSelStr, ":");
        console.log("argCount: ", argCount);

        // console.log("funcName=", funcName);
        // const argCount = occurrences(funcName, ":");
        // console.log("argCount: ", argCount);

        for (let curArgIdx = 0; curArgIdx < argCount; curArgIdx++) {
            const curArg = args[curArgIdx + 2];

            // const usePtr = false;
            const usePtr = true;
            if (usePtr) {
                // console.log("usePtr=", usePtr);
                const curArgPtr = ptr(curArg);
                console.log("----- [" + curArgIdx + "] curArgPtr=" + curArgPtr);
                if (!curArgPtr.isNull()) {
                    const curArgPtrObj = new ObjC.Object(curArgPtr);
                    console.log("curArgPtrObj: ", curArgPtrObj);
                    console.log("curArgPtrObj className: ", curArgPtrObj.$className);
                    console.log("curArgPtrObj kind: ", curArgPtrObj.$kind);
                }
            } else {
                console.log("----- [" + curArgIdx + "] curArg=" + curArg);
                if (curArg && (curArg != 0x0)) {
                    // console.log("curArg className: ", curArg.$className);
                    const curArgObj = new ObjC.Object(curArg);
                    console.log("curArgObj: ", curArgObj);
                    console.log("curArgObj className: ", curArgObj.$className);
                    console.log("curArgObj kind: ", curArgObj.$kind);
                }
            }
        }
    }
}

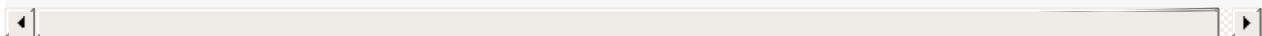
```

```

    });
}else{
    console.log("Can't find method", funcName);
}
}else{
    console.log("Can't find class: ", className);
}
}

//Your class name and function name here
hook_specific_method_of_class("NSXPConnection", "- setExportedObject:")

```



典型log输出：

```

===== - [NSXPConnection setExportedObject:] =====
argSelf: 0x1057047a0
argSelfObj: <NSXPConnection: 0x1057047a0> connection from pid 46847 on mach service named com.apple.ak.auth.xpc
argSelfClassName: NSXPConnection
argSel: 0x19b362b44
argSelStr: setExportedObject:
funcName= - setExportedObject:
argCount: 1
----- [0] curArgPtr 0x105743aa0
curArgPtrObj: <AKAppleIDAuthenticationService: 0x105743aa0>
curArgPtrObj className: AKAppleIDAuthenticationService
curArgPtrObj kind: instance
===== - [NSXPConnection setExportedObject:] =====
argSelf: 0x1057047a0
argSelfObj: <NSXPConnection: 0x1057047a0> connection from pid 46847 on mach service named com.apple.ak.auth.xpc
argSelfClassName: NSXPConnection
argSel: 0x19b362b44
argSelStr: setExportedObject:
argCount: 1
----- [0] curArgPtr 0x0

```

- 关于argCount的计算

另外，计算 argCount 的代码，如果从：

```

const argCount = occurrences(argSelStr, ":");
console.log("argCount: ", argCount);

// console.log("funcName=", funcName);
// const argCount = occurrences(funcName, ":");
// console.log("argCount: ", argCount);

```

换成：

```

// const argCount = occurrences(argSelStr, ":");
// console.log("argCount: ", argCount);

```

```

        console.log("funcName=", funcName);
        const argCount = occurrences(funcName, ":");
        console.log("argCount: ", argCount);
    
```

则对应部分输出从：

```

argSelStr: setExportedObject:
argCount: 1
    
```

变成：

```

argSelStr: setExportedObject:
funcName= - setExportedObject:
argCount: 1
    
```

## 优化逻辑：加上参数值的判断和过滤

如果此处需要有类似于，过滤参数的值，判断参数的值，并且过滤只输出对应值，则可以去：

- 把ObjC的NSString转换成js的String
- 然后再去用 === 去对比判断字符串

完整代码：

```

/*
 * Util Functions
 */

// convert from frida function call to ObjC function call
// "NSURL", "- initWithString:" => "[NSURL initWithString:]"
function toiOSObjCCall(class_name, method_name){
    const instanceCallStart = "-[" + class_name + " ";
    const classCallStart = "+[" + class_name + " ";
    var objcFuncCall = method_name.replace("-", instanceCallStart);
    objcFuncCall = objcFuncCall.replace("+", classCallStart);
    objcFuncCall = objcFuncCall + "]";
    // console.log(class_name + " -> " + method_name + " => " + objcFuncCall);
    return objcFuncCall;
}

/*
 * Frida Hook
 */

// https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/ho
ok-specific-method-of-class.js
function hook_specific_method_of_class(className, funcName)
{
    var iOSObjCallStr = toiOSObjCCall(className, funcName)
    console.log("iOSObjCallStr=", iOSObjCallStr)
    var curClass = ObjC.classes[className];
}
    
```

```

if (typeof(curClass) !== 'undefined') {
    var curMethod = curClass[funcName];
    if (typeof(curMethod) !== 'undefined') {

        Interceptor.attach(curMethod.implementation, {
            onEnter: function(args) {
                console.log("======" + iOSObjCallStr + " =====");
            }

            // args[0] is self = id
            const argSelf = args[0];
            console.log("argSelf: ", argSelf);
            const argSelfObj = new ObjC.Object(argSelf);
            console.log("argSelfObj: ", argSelfObj);
            const argSelfClassName = argSelfObj.$className;
            console.log("argSelfClassName: ", argSelfClassName);

            const connnServiceNameNSStr = argSelfObj.serviceName();
            const connnServiceNameJsStr = connnServiceNameNSStr.UTF8String()

            // args[1] is selector
            const argSel = args[1];
            console.log("argSel: ", argSel);
            const argSelStr = ObjC.selectorAsString(argSel);
            console.log("argSelStr: ", argSelStr);

            if (connnServiceNameJsStr === "com.apple.ak.auth.xpc") {
                console.log("connnServiceNameNSStr: ", connnServiceNameNSStr);
                console.log("connnServiceNameJsStr: ", connnServiceNameJsStr);

                // args[2] holds the first function argument
                const args2 = args[2];
                console.log("args2: ", args2);
                if (args2 !== 0x0) {
                    const args2Obj = new ObjC.Object(args2);
                    // const args2Obj = new ObjC.Object(ptr(args2));
                    console.log("args2Obj: ", args2Obj);
                    const args2ObjClassName = args2Obj.$className;
                    console.log("args2ObjClassName: ", args2ObjClassName);
                    const args2ObjStr = args2Obj.toString();
                    console.log("args2ObjStr: ", args2ObjStr);
                }
            }
        });
    } else{
        console.log("Can't find method", funcName);
    }
} else{
    console.log("Can't find class: ", className);
}
}

//Your class name and function name here

```

```
hook_specific_method_of_class("NSXPConnection", "- setExportedObject:")
```

典型log输出：

```
===== - [NSXPConnection setExportedObject:] =====
argSelf: 0x1057047a0
argSelfObj: NSXPConnection: 0x1057047a0 connection from pid 46847 on mach service named com.apple.ak.auth.xpc
argSelfClassName: NSXPConnection
argSel: 0x19b362b44
argSelStr: setExportedObject:
argCount: 1
connnServiceNameNSStr: com.apple.ak.auth.xpc
connnServiceNameJsStr: com.apple.ak.auth.xpc
args2: 0x105743aa0
args2Obj: AKAppleIDAuthenticationService: 0x105743aa0
args2ObjClassName: AKAppleIDAuthenticationService
args2ObjStr: AKAppleIDAuthenticationService: 0x105743aa0
===== - [NSXPConnection setExportedObject:] =====
argSelf: 0x1057047a0
argSelfObj: NSXPConnection: 0x1057047a0 connection from pid 46847 on mach service named com.apple.ak.auth.xpc
argSelfClassName: NSXPConnection
argSel: 0x19b362b44
argSelStr: setExportedObject:
argCount: 1
connnServiceNameNSStr: com.apple.ak.auth.xpc
connnServiceNameJsStr: com.apple.ak.auth.xpc
args2: 0x0
```

即：

只打印 serviceName 是 com.apple.ak.auth.xpc 的 NSXPConnection，过滤掉其他的，比如之前会打印的：

```
===== - [NSXPConnection setExportedObject:] =====
argSelf: 0x102d35b60
argSelfObj: NSXPConnection: 0x102d35b60 connection from pid 46847 on mach service named com.apple.ak.anisette.xpc
connnServiceName: com.apple.ak.anisette.xpc
argSelfClassName: NSXPConnection
args2: 0x0

===== - [NSXPConnection setExportedObject:] =====
argSelf: 0x102d34e00
argSelfObj: NSXPConnection: 0x102d34e00 connection from pid 31901 on mach service named com.apple.ak.authorizationservices.xpc
connnServiceName: com.apple.ak.authorizationservices.xpc
argSelfClassName: NSXPConnection
args2: 0x102d513c0
args2Obj: AKAuthorizationDaemonService: 0x102d513c0
args2ObjClassName: AKAuthorizationDaemonService
args2ObjStr: AKAuthorizationDaemonService: 0x102d513c0
```

```

=====
- [NSXPConnection setExportedObject:]
argSelf: 0x102d35a30
argSelfObj: ACTrackedXPConnection: 0x102d35a30 connection to service with pid 104 named com.apple.accounts.accountmanager
connnServiceName: com.apple.accounts.accountmanager
argSelfClassName: ACTrackedXPConnection
args2: 0x0

```

等内容。

## 最终代码

```

/*
 * Util Functions
 */

/** Function that count occurrences of a substring in a string;
 * @param {String} string           The string
 * @param {String} subString        The sub string to search for
 * @param {Boolean} [allowOverlapping] Optional. (Default:false)
 *
 * @author Vitim.us https://gist.github.com/victornpb/7736865
 * @see Unit Test https://jsfiddle.net/Victornpb/5axuh96u/
 * @see https://stackoverflow.com/a/7924240/938822
 * @example occurrences("- setExportedObject:", ":") => 1
 */
function occurrences(string, subString, allowOverlapping) {
    // console.log("string=" + string + ",subString=" + subString + ", allowOverlapping=" + allowOverlapping)
    string += "";
    subString += "";
    if (subString.length <= 0) return (string.length + 1);

    var n = 0,
        pos = 0,
        step = allowOverlapping ? 1 : subString.length;

    while (true) {
        pos = string.indexOf(subString, pos);
        // console.log("pos=" + pos)
        if (pos >= 0) {
            ++n;
            pos += step;
        } else break;
    }

    return n;
}

// convert from frida function call to ObjC function call
// "NSURL", "- initWithString:" => "-[NSURL initWithString:]"
function toiOSObjcCall(class_name, method_name){
    const instanceCallStart = "-[" + class_name + " ";

```

```

const classCallStart = "+[" + class_name + " ";
var objcFuncCall = method_name.replace("- ", instanceCallStart);
objcFuncCall = objcFuncCall.replace("+", classCallStart);
objcFuncCall = objcFuncCall + "]";
// console.log(class_name + " -> " + method_name + " => " + objcFuncCall);
return objcFuncCall;
}

// convert from ObjC function call to frida function call
// "-[NSURL initWithString:]" => ["NSURL", "- initWithString:"]
function toFridaObjcCall(fridaObjcCallStr){
    // console.log("fridaObjcCallStr=" + fridaObjcCallStr)
    const funcCallP = /^([-+])\[(\w+)\s+([\w:]+)\]$/;
    // console.log("funcCallP=" + funcCallP)
    const funcCallMatch = fridaObjcCallStr.match(funcCallP)
    // console.log("funcCallMatch=" + funcCallMatch)
    const objcFuncTypeChar = funcCallMatch[1]
    const objcClassName = funcCallMatch[2]
    const objcFuncName = funcCallMatch[3]
    const fridaFuncCallList = [objcClassName, objcFuncTypeChar + " " + objcFuncName]
    // console.log("fridaFuncCallList=" + fridaFuncCallList)
    return fridaFuncCallList
}

// NSString instance -> js string
function nsStrToJsStr(curNsStr){
    // method 1
    return curNsStr.UTF8String()
    // // method 2:
    // const NSUTF8StringEncoding = 4;
    // https://developer.apple.com/documentation/foundation/nsstring/1408489-cstringusingencoding?language=objc
    // return curNsStr.cStringUsingEncoding_(NSUTF8StringEncoding)
}

/*****************
* Frida Hook
*****************/
// Note: Another write type for for sure can found class and method
// const curMethod = ObjC.classes.NSXPCConnection["- setExportedObject:"];
// console.log("curMethod: ", curMethod);
// const iOSObjCallStr = "-[NSXPCConnection setExportedObject:]";

// https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/ho
ok-specific-method-of-class.js
function hook_specific_method_of_class(className, funcName)
{
    // var iOSObjCallStr = "className=" + className + ", funcName=" + funcName
    var iOSObjCallStr = toiOSObjcCall(className, funcName)
    console.log("iOSObjCallStr=", iOSObjCallStr)
    var curClass = ObjC.classes[className];
    if (typeof(curClass) !== 'undefined') {
        var curMethod = curClass[funcName];
        if (typeof(curMethod) !== 'undefined') {

```

```

Interceptor.attach(curMethod.implementation, {
    onEnter: function(args) {
        console.log("=====" + iosObjCallStr + " =====")
    }

    // console.log("argSelf=" + args[0] + ", argSel=" + args[1] + ", realArg1=" + args[2]);

    // args[0] is self = id
    const argSelf = args[0];
    // console.log("argSelf: ", argSelf);
    const argSelfObj = new ObjC.Object(argSelf);
    console.log("argSelfObj: ", argSelfObj);
    const argSelfClassName = argSelfObj.$className;
    // console.log("argSelfClassName: ", argSelfClassName);

    const connnServiceNameNSStr = argSelfObj.serviceName();
    // const connnServiceNameJsStr = connnServiceNameNSStr.UTF8String()
    const connnServiceNameJsStr = nsStrToJsStr(connnServiceNameNSStr)

    // // args[1] is selector
    // const argSel = args[1];
    // console.log("argSel: ", argSel);
    // const argSelStr = ObjC.selectorAsString(argSel);
    // console.log("argSelStr: ", argSelStr);

    // const argCount = occurrences(argSelStr, ":");

    // const argCount = occurrences(funcName, ":");

    // console.log("funcName=", funcName);
    // const argCount = occurrences(funcName, ":");

    if (connnServiceNameJsStr === "com.apple.ak.auth.xpc") {
        // console.log("connnServiceNameNSStr: ", connnServiceNameNSStr);
        console.log("connnServiceNameJsStr: ", connnServiceNameJsStr);

        // args[2] holds the first function argument
        const args2 = args[2];
        console.log("args2: ", args2);
        if (args2 != 0x0) {
            const args2Obj = new ObjC.Object(args2);
            // const args2Obj = new ObjC.Object(ptr(args2));
            console.log("args2Obj: ", args2Obj);
            const args2ObjClassName = args2Obj.$className;
            console.log("args2ObjClassName: ", args2ObjClassName);
            const args2ObjStr = args2Obj.toString();
            console.log("args2ObjStr: ", args2ObjStr);
        }
    }

    // // debug: output all function real parameters
    // for (let curArgIdx = 0; curArgIdx < argCount; curArgIdx++) {
    //     const curArg = args[curArgIdx + 2];

    //     // const usePtr = false;
}

```

```

    //  const usePtr = true;
    //  if (usePtr) {
    //      // console.log("usePtr=", usePtr);
    //      const curArgPtr = ptr(curArg);
    //      console.log("----- [" + curArgIdx + "] curArgPtr=" + curArgPtr);
    //      if (!curArgPtr.isNull()) {
    //          const curArgPtrObj = new ObjC.Object(curArgPtr);
    //          console.log("curArgPtrObj: ", curArgPtrObj);
    //          console.log("curArgPtrObj className: ", curArgPtrObj.$className);
    //          console.log("curArgPtrObj kind: ", curArgPtrObj.$kind);
    //      }
    //  } else {
    //      console.log("----- [" + curArgIdx + "] curArg=" + curArg);
    //      if (curArg && (curArg != 0x0)) {
    //          // console.log("curArg className: ", curArg.$className);
    //          const curArgObj = new ObjC.Object(curArg);
    //          console.log("curArgObj: ", curArgObj);
    //          console.log("curArgObj className: ", curArgObj.$className);
    //          console.log("curArgObj kind: ", curArgObj.$kind);
    //      }
    //  }
    // }

    });
} else{
    console.log("Can't find method", funcName);
}
} else{
    console.log("Can't find class: ", className);
}
}

//Your class name and function name here
hook_specific_method_of_class("NSXPConnection", "- setExportedObject:")

```

输出log：

```

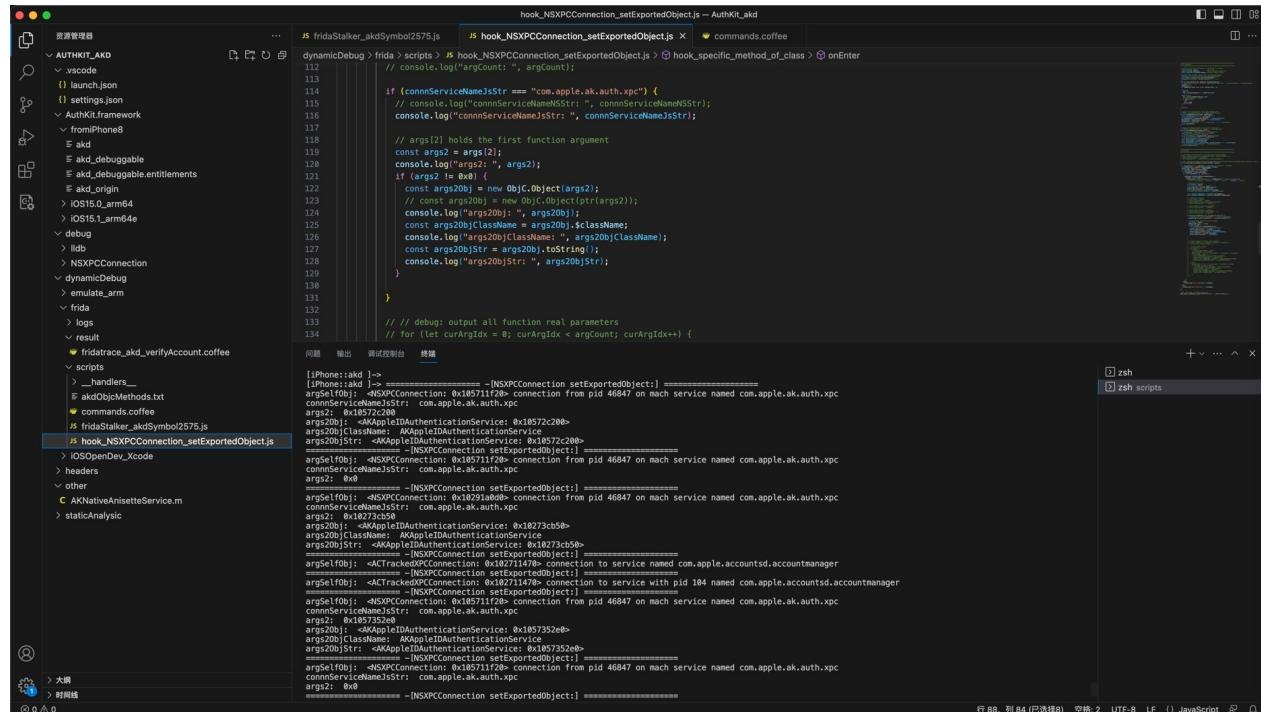
===== - [NSXPConnection setExportedObject:] =====
argSelfObj: NSXPConnection: 0x105711f20 connection from pid 46847 on mach service named com.apple.ak.auth.xpc
connnServiceNameJsStr: com.apple.ak.auth.xpc
args2: 0x10572c200
args2Obj: AKAppleIDAuthenticationService: 0x10572c200
args2ObjClassName: AKAppleIDAuthenticationService
args2ObjStr: AKAppleIDAuthenticationService: 0x10572c200
===== - [NSXPConnection setExportedObject:] =====
argSelfObj: NSXPConnection: 0x105711f20 connection from pid 46847 on mach service named com.apple.ak.auth.xpc
connnServiceNameJsStr: com.apple.ak.auth.xpc
args2: 0x0
===== - [NSXPConnection setExportedObject:] =====
argSelfObj: NSXPConnection: 0x10291a0d0 connection from pid 46847 on mach service named com.apple.ak.auth.xpc

```

```

connnServiceNameJsStr: com.apple.ak.auth.xpc
args2: 0x10273cb50
args20bj: AKAppleIDAuthenticationService: 0x10273cb50
args20bjClassName: AKAppleIDAuthenticationService
args20bjStr: AKAppleIDAuthenticationService: 0x10273cb50
    - [NSXPConnection setExportedObject:]
argSelfObj: ACTrackedXPConnection: 0x102711470 connection to service named com.apple.accounts.accountmanager
    - [NSXPConnection setExportedObject:]
argSelfObj: ACTrackedXPConnection: 0x102711470 connection to service with pid 104 named com.apple.accounts.accountmanager

```



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2024-03-19 09:52:43

## 单个类的所有函数

### hook类 AAUISignInViewController 的所有函数

#### Frida命令

```
frida -U -F p 18533 -l ./hookAccountLogin_Interceptor.js
```

#### js文件 hookAccountLogin\_Interceptor.js 内容

```
// https://raw.githubusercontent.com/noobpk/frida-ios-hook/master/frida-ios-hook/frida-
scripts/hook-all-methods-of-specific-class.js
function hook_class_method(class_name, method_name)
{
    var hook = ObjC.classes[class_name][method_name];
    Interceptor.attach(hook.implementation, {
        onEnter: function(args) {
            console.log("[*] Detected call to: " + class_name + " -> " + method_name);
        }
    });
}

function run_hook_all_methods_of_specific_class(className_arg)
{
    console.log("[*] Started: Hook all methods of a specific class");
    console.log("[+] Class Name: " + className_arg);
    //Your class name here
    var className = className_arg;
    //var methods = ObjC.classes[className].$methods;
    var methods = ObjC.classes[className].$ownMethods;
    for (var i = 0; i < methods.length; i++)
    {
        console.log(" " + methods[i]);
        // console.log("\t[*] Hooking into implementation");
        //eval('var className2 = "' + className + '"; var funcName2 = "' + methods[i] + '"; var
        hook = eval('ObjC.classes.' + className2 + '[' + funcName2 + ']'); Interceptor.attach(
        hook.implementation, { onEnter: function(args) { console.log("[*] Detected call to
        : " + className2 + " -> " + funcName2); }});');
        var className2 = className;
        var funcName2 = methods[i];
        hook_class_method(className2, funcName2);
        // console.log("\t[*] Hooking successful");
    }
    console.log("[*] Completed: Hook all methods of a specific class");
}

function hook_all_methods_of_specific_class(className_arg)
{
    setImmediate(run_hook_all_methods_of_specific_class, [className_arg])
}
```

```
//Your class name goes here
hook_all_methods_of_specific_class("AAUISignInViewController")
```

## 输出

最开始输出：

```
x crifan licrifandeMacBook Pro" ~/dev/dev_root/iosReverse/AppleStore/Preferences_app/dynamicDebug frida -U -F -l ./hookAccountLogin_Interceptor.js -p 18533

    _____
   /     |  Frida 16.0.10 - A world class dynamic instrumentation toolkit
  /      |
 >     /  Commands:
 /_    /    help      -> Displays the help system
 .    .    object?   -> Display information about 'object'
 .    .    exit quit -> Exit
 .
 .
 More info at https://frida.re/docs/home/

.
.
.
Connected to iPhone (id abdc0dd961c3cb96f5c4afe109de4eb48b88433a)
Attaching...
[+] Started: Hook all methods of a specific class
[+] Class Name: AAUISignInViewController
+ phoneNumberSupportedWithCompletion
- textField shouldChangeCharactersInRange replacementString
- tableView viewForHeaderInSection
- textFieldShouldReturn
- _keyboardWillHide
- titleLabel
- _keyboardWillShow
- loadView
- setUsername
- sizeCategoryDidChange
- _hasValidCredentials
- username
- tableView numberOfRowsInSection
- viewDidLoad
- _tableView
- delegate
- authenticationContext
- _setEnabled
- _tableFooterView
- viewWillAppear
- tableView willDisplayCell forIndexPath
- remoteUIController shouldLoadRequest redirectResponse
- cxx_destruct
- numberOfRowsInTableView
- viewDidDisappear
- traitCollectionDidChange
- initWithCoder
- tableView heightForRowAtIndexPath
- tableView viewForFooterInSection
- tableView cellForRowAtIndexPath
```

```
setDelegate
_tableHeaderView
tableView shouldDrawTopSeparatorForSection
messageLabel
initWithNibName bundle
dealloc
_cancelBarButtonItem
viewDidLayoutSubviews
_cancelPasswordDelegateIfNecessary
context needsPasswordWithCompletion
_passwordCell
_textFieldDidChange
_nextBarButtonItem
_updateConstraintsForTraitCollection
_beginObservingTextFieldDidChangeNotifications
_beginObservingKeyboardWillShowNotifications
_beginObservingSizeCategoryNotification
_usernameCell
_updateContentInsetWithHeight
_endObservingSizeCategoryNotification
_endObservingTextFieldDidChangeNotifications
_endObservingKeyboardWillShowNotifications
_akServiceType
_shouldAnticipatePiggybacking
_accountsHeaderView
_cancelButtonSelected
_nextButtonSelected
constrainView toFillHeaderFooterView
allowsAccountCreation
ActionButtonSelected
showServiceIcons
_stringForFooter
privacyLinkIdentifiers
_showOnlyPassword
_isGreenTeaCapable
_setUsernameCellWaiting
_delegate_signInViewControllerDidCancel
_attemptAuthentication
_prewarmSignInFlowIfApplicable
_presentForgotAppleIDPane
_presentCreateAppleIDPane
_attemptAuthenticationWithContext
_isPasswordFieldVisible
_isRunningInSettings
_repairCloudAccountWithAuthenticationResults
_delegate_signInViewControllerDidCompleteWithAuthenticationResults
_authorizationValueForAuthenticationResults
_passwordFieldIndexPath
_setPasswordFieldHidden
_setAkServiceType
_setShouldAnticipatePiggybacking
setAllowsAccountCreation
 setShowServiceIcons
canEditUsername
setCanEditUsername
setPrivacyLinkIdentifiers
```

```

- showingPasswordCell
- setShowingPasswordCell
[*] Completed: Hook all methods of a specific class
[iPhone: PID: 18533 ]->

```

后续操作app页面，触发：

```

[*] Detected call to: AAUISignInViewController -> textField shouldChangeCharactersInRange replacementString:
[*] Detected call to: AAUISignInViewController -> _isPasswordFieldVisible
[*] Detected call to: AAUISignInViewController -> _showOnlyPassword
[*] Detected call to: AAUISignInViewController -> _textFieldDidChange
[*] Detected call to: AAUISignInViewController -> _isValidCredentials
[*] Detected call to: AAUISignInViewController -> _textFieldDidChange
[*] Detected call to: AAUISignInViewController -> _isValidCredentials
[*] Detected call to: AAUISignInViewController -> textField shouldChangeCharactersInRange replacementString:
[*] Detected call to: AAUISignInViewController -> _isPasswordFieldVisible
[*] Detected call to: AAUISignInViewController -> _showOnlyPassword
[*] Detected call to: AAUISignInViewController -> _textFieldDidChange
[*] Detected call to: AAUISignInViewController -> _isValidCredentials
[*] Detected call to: AAUISignInViewController -> textField shouldChangeCharactersInRange replacementString:
[*] Detected call to: AAUISignInViewController -> _isPasswordFieldVisible
[*] Detected call to: AAUISignInViewController -> _showOnlyPassword
[*] Detected call to: AAUISignInViewController -> _textFieldDidChange
[*] Detected call to: AAUISignInViewController -> _isValidCredentials
[*] Detected call to: AAUISignInViewController -> textField shouldChangeCharactersInRange replacementString:
[*] Detected call to: AAUISignInViewController -> _isPasswordFieldVisible
[*] Detected call to: AAUISignInViewController -> _showOnlyPassword
[*] Detected call to: AAUISignInViewController -> _textFieldDidChange
[*] Detected call to: AAUISignInViewController -> _isValidCredentials
[*] Detected call to: AAUISignInViewController -> textField shouldChangeCharactersInRange replacementString:
[*] Detected call to: AAUISignInViewController -> _isPasswordFieldVisible
[*] Detected call to: AAUISignInViewController -> _showOnlyPassword
[*] Detected call to: AAUISignInViewController -> _textFieldDidChange
[*] Detected call to: AAUISignInViewController -> _isValidCredentials

```

继续操作app页面：输入账号，点击下一步按钮，输出：

```

[*] Detected call to: AAUISignInViewController -> _attemptAuthentication
[*] Detected call to: AAUISignInViewController -> _isPasswordFieldVisible
[*] Detected call to: AAUISignInViewController -> _showOnlyPassword
[*] Detected call to: AAUISignInViewController -> authenticationContext
[*] Detected call to: AAUISignInViewController -> _akServiceType
[*] Detected call to: AAUISignInViewController -> _shouldAnticipatePiggybacking
[*] Detected call to: AAUISignInViewController -> _isRunningInSettings
[*] Detected call to: AAUISignInViewController -> _attemptAuthenticationWithContext
[*] Detected call to: AAUISignInViewController -> _setEnabled
[*] Detected call to: AAUISignInViewController -> textField shouldChangeCharactersInRange replacementString:

```

```

[*] Detected call to: AAUISignInViewController -> _isPasswordFieldVisible
[*] Detected call to: AAUISignInViewController -> _showOnlyPassword
[*] Detected call to: AAUISignInViewController -> _textFieldDidChange
[*] Detected call to: AAUISignInViewController -> _isValidCredentials
[*] Detected call to: AAUISignInViewController -> _isValidCredentials
[*] Detected call to: AAUISignInViewController -> _keyboardWillShow
[*] Detected call to: AAUISignInViewController -> _updateContentInsetWithHeight
[*] Detected call to: AAUISignInViewController -> _keyboardWillHide
[*] Detected call to: AAUISignInViewController -> _updateContentInsetWithHeight
[*] Detected call to: AAUISignInViewController -> _setUsernameCellWaiting
[*] Detected call to: AAUISignInViewController -> _showOnlyPassword
[*] Detected call to: AAUISignInViewController -> _prewarmSignInFlowIfApplicable
[*] Detected call to: AAUISignInViewController -> showServiceIcons
[*] Detected call to: AAUISignInViewController -> context.needsPasswordWithCompletion

[*] Detected call to: AAUISignInViewController -> setPasswordFieldHidden
[*] Detected call to: AAUISignInViewController -> _isPasswordFieldVisible
[*] Detected call to: AAUISignInViewController -> _showOnlyPassword
[*] Detected call to: AAUISignInViewController -> _passwordFieldIndexPath
[*] Detected call to: AAUISignInViewController -> numberOfRowsInSectionTableview
[*] Detected call to: AAUISignInViewController -> numberOfRowsInSectionTableview
[*] Detected call to: AAUISignInViewController -> tableView numberOfRowsInSectionSection
[*] Detected call to: AAUISignInViewController -> _showOnlyPassword
[*] Detected call to: AAUISignInViewController -> tableView heightForRowAtIndexPath
[*] Detected call to: AAUISignInViewController -> tableView heightForRowAtIndexPath
[*] Detected call to: AAUISignInViewController -> tableView cellForRowAtIndexpath
[*] Detected call to: AAUISignInViewController -> _passwordFieldIndexPath
[*] Detected call to: AAUISignInViewController -> _passwordCell
[*] Detected call to: AAUISignInViewController -> tableView shouldDrawTopSeparatorFor

Section:
[*] Detected call to: AAUISignInViewController -> tableView heightForRowAtIndexPath
[*] Detected call to: AAUISignInViewController -> tableView willDisplayCellForRowAtIndexpath
[*] Detected call to: AAUISignInViewController -> tableView shouldDrawTopSeparatorFor

Section:
[*] Detected call to: AAUISignInViewController -> tableView shouldDrawTopSeparatorFor
[*] Detected call to: AAUISignInViewController -> _setEnabled
[*] Detected call to: AAUISignInViewController -> _isValidCredentials
[*] Detected call to: AAUISignInViewController -> _setUsernameCellWaiting
[*] Detected call to: AAUISignInViewController -> tableView shouldDrawTopSeparatorFor

Section:
[*] Detected call to: AAUISignInViewController -> tableView shouldDrawTopSeparatorFor
[*] Detected call to: AAUISignInViewController -> _keyboardWillShow
[*] Detected call to: AAUISignInViewController -> _updateContentInsetWithHeight
[*] Detected call to: AAUISignInViewController -> _keyboardWillShow
[*] Detected call to: AAUISignInViewController -> _updateContentInsetWithHeight

```

## 所有类的所有函数

- 注意：下面代码，没有真正生效，实现我们希望的，hook所有的类的所有方法
  - 只是记录目前的效果，供参考。

### frida命令

```
frida -U -N com.apple.Preferences -l hookAccountLogin_Interceptor_allClassAllMethod.js
```

### js脚本文 件 hookAccountLogin\_Interceptor\_allClassAllMethod.js 内容

```
// https://github.com/noobpk/frida-ios-hook/blob/master/frida-ios-hook/frida-scripts/hook-all-methods-of-all-classes-app-only.js

function get_timestamp()
{
    var today = new Date();
    var timestamp = today.getFullYear() + '-' + (today.getMonth()+1) + '-' + today.getDate() + ' ' + today.getHours() + ":" + today.getMinutes() + ":" + today.getSeconds() + ";" + today.getMilliseconds();
    return timestamp;
}

function hook_class_method(class_name, method_name)
{
    var hook = ObjC.classes[class_name][method_name];
    Interceptor.attach(hook.implementation, {
        onEnter: function(args) {
            console.log("[*] [" + get_timestamp() + "] Detected call to: " + class_name + " -> " + method_name);
        }
    });
}

function run_hook_all_methods_of_classes_app_only(verbose)
{
    console.log("[*] Started: Hook all methods of all app only classes");
    var free = new NativeFunction(Module.findExportByName(null, 'free'), 'void', ['pointer']);
    var copyClassNamesForImage = new NativeFunction(Module.findExportByName(null, 'objc_copyClassNamesForImage'), 'pointer', ['pointer', 'pointer']);
    var p = Memory.alloc(Process.pageSize);
    Memory.writeInt(p, 0);
    var path = ObjC.classes.NSBundle mainBundle().executablePath().UTF8String();
    var pPath = Memory.allocUtf8String(path);
    var pClasses = copyClassNamesForImage(pPath, p);
    var count = Memory.readUInt(p)
```

```

var classesArray = new Array(count)
for (var i = 0; i < count; i++)
{
    var pClassName = Memory.readPointer(pClasses.add(i * Process.pointerSize))
    classesArray[i] = Memory.readUtf8String(pClassName)
    var className = classesArray[i]
    if (ObjC.classes.hasOwnProperty(className))
    {
        //console.log("[+] Class: " + className);
        //var methods = ObjC.classes[className].$methods;
        var methods = ObjC.classes[className].$ownMethods;
        for (var j = 0; j < methods.length; j++)
        {
            try
            {
                var className2 = className;
                var funcName2 = methods[j];
                //console.log("[-] Method: " + methods[j]);
                hook_class_method(className2, funcName2);
                if (verbose)
                    console.log("[*] [" + get_timestamp() + "] Hooking successful: "
+ className2 + " -> " + funcName2);
            }
            catch(err)
            {
                console.log("[*] [" + get_timestamp() + "] Hooking Error: " + err.message);
            }
        }
    }
}
free(pClasses)
console.log("[*] Completed: Hook all methods of all app only classes");
}

function hook_all_methods_of_classes_app_only()
{
    setImmediate(run_hook_all_methods_of_classes_app_only,[false])
}

function hook_all_methods_of_classes_app_only(verbose)
{
    setImmediate(run_hook_all_methods_of_classes_app_only,[true])
}

hook_all_methods_of_classes_app_only()
//hook_all_methods_of_classes_app_only("verbose") //for verbose output

```

## 输出

```

→ scripts frida -U -N com.apple.Preferences -l hookAccountLogin_Interceptor_allClassAllMethod.js

```

```

    / _ |  Frida 16.0.19 - A world-class dynamic instrumentation toolkit
    | ( |
    > - | Commands:
    /-/ |     help      -> Displays the help system
    + + + |     object?   -> Display information about 'object'
    + + + |     exit/quit -> Exit

    + + + More info at https://frida.re/docs/home/

    + + + Connected to iPhone (id abdc0dd961c3cb96f5c4afe109de4eb48b88433a)
[*] Started: Hook all methods of all app only classes
[*] [2023-6-23 15:28:28:851] Hooking successful: PreferencesAppController -> - rootController
[*] [2023-6-23 15:28:28:852] Hooking successful: PreferencesAppController -> - appWindow
[*] [2023-6-23 15:28:28:853] Hooking successful: PreferencesAppController -> - profileConnectionDidReceiveProfileListChangedNotification:userInfo:
[*] [2023-6-23 15:28:28:854] Hooking successful: PreferencesAppController -> - profileConnectionDidReceiveRestrictionChangedNotification:userInfo:
[*] [2023-6-23 15:28:28:855] Hooking successful: PreferencesAppController -> - profileConnectionDidReceiveEffectiveSettingsChangedNotification:userInfo:
[*] [2023-6-23 15:28:28:856] Hooking successful: PreferencesAppController -> - profileConnectionDidReceivePasscodeChangedNotification:userInfo:
[*] [2023-6-23 15:28:28:858] Hooking successful: PreferencesAppController -> - clearControllersForSuspendedState
[*] [2023-6-23 15:28:28:858] Hooking successful: PreferencesAppController -> - popToRootOfSettingsSelectGeneral:
[*] [2023-6-23 15:28:28:859] Hooking successful: PreferencesAppController -> - popToRootOfSettingsSelectGeneral:performWithoutDeferringTransitions:
[*] [2023-6-23 15:28:28:860] Hooking successful: PreferencesAppController -> - runTest:options:
[*] [2023-6-23 15:28:28:862] Hooking successful: PreferencesAppController -> - runLoadingTest:withOptions:
[*] [2023-6-23 15:28:28:863] Hooking successful: PreferencesAppController -> - runScrollTest:withOptions:
[*] [2023-6-23 15:28:28:864] Hooking successful: PreferencesAppController -> - runScrollTest:withDelay:withOptions:
[*] [2023-6-23 15:28:28:866] Hooking successful: PreferencesAppController -> - performRecapScrollTest:withOptions:scrollView:
[*] [2023-6-23 15:28:28:867] Hooking successful: PreferencesAppController -> - updateSoftwareUpdateBadgeOnSpecifier:
[*] [2023-6-23 15:28:28:868] Hooking successful: PreferencesAppController -> - _registerForAccessoryNotifications
[*] [2023-6-23 15:28:28:869] Hooking successful: PreferencesAppController -> - application:didFinishLaunchingWithOptions:
[*] [2023-6-23 15:28:28:871] Hooking successful: PreferencesAppController -> - processStateRestorationURL
[*] [2023-6-23 15:28:28:871] Hooking successful: PreferencesAppController -> - application:configurationForConnectingSceneSession:options:
[*] [2023-6-23 15:28:28:873] Hooking successful: PreferencesAppController -> - receivedApplicationWillConnectWindowScene:
[*] [2023-6-23 15:28:28:874] Hooking successful: PreferencesAppController -> - quickActionShortcutItems
[*] [2023-6-23 15:28:28:875] Hooking successful: PreferencesAppController -> - receivedApplicationWillTerminateNotification:
[*] [2023-6-23 15:28:28:884] Hooking successful: PreferencesAppController -> - received

```

```

ApplicationDidEnterBackground:
[*] [2023-6-23 15:28:28:886] Hooking successful: PreferencesAppController -> - received
ApplicationWillEnterForegroundNotification:
[*] [2023-6-23 15:28:28:887] Hooking successful: PreferencesAppController -> - received
ApplicationDidBecomeActive:
[*] [2023-6-23 15:28:28:888] Hooking successful: PreferencesAppController -> - received
ApplicationWillResignActiveNotification:
[*] [2023-6-23 15:28:28:890] Hooking successful: PreferencesAppController -> - received
ApplicationContinueUserActivity:
[*] [2023-6-23 15:28:28:890] Hooking successful: PreferencesAppController -> - received
ApplicationResumeNotification:
[*] [2023-6-23 15:28:28:892] Hooking successful: PreferencesAppController -> - received
ApplicationOpenURLNotification:
[*] [2023-6-23 15:28:28:893] Hooking successful: PreferencesAppController -> - processU
RL:
[*] [2023-6-23 15:28:28:894] Hooking successful: PreferencesAppController -> - processU
RL:animated:fromSearch:
[*] [2023-6-23 15:28:28:895] Hooking successful: PreferencesAppController -> - processU
RL:animated:fromSearch:withCompletion:
[*] [2023-6-23 15:28:28:896] Hooking successful: PreferencesAppController -> - _ratio
nalyzeAccountSettingsURLDictionary:
[*] [2023-6-23 15:28:28:898] Hooking successful: PreferencesAppController -> - handleAu
thKitURLIfNeededFromResourceDictionary:overViewController:
[*] [2023-6-23 15:28:28:898] Hooking successful: PreferencesAppController -> - processA
ppPrefsURL:
[*] [2023-6-23 15:28:28:899] Hooking successful: PreferencesAppController -> - processS
hortcutsAppPrefsURL:
[*] [2023-6-23 15:28:28:900] Hooking successful: PreferencesAppController -> - processP
rebuddyURL:
[*] [2023-6-23 15:28:28:901] Hooking successful: PreferencesAppController -> - processT
VProviderPrefsURL:
[*] [2023-6-23 15:28:28:902] Hooking successful: PreferencesAppController -> - processO
tpauthURL:
[*] [2023-6-23 15:28:28:903] Hooking successful: PreferencesAppController -> - generate
URL
[*] [2023-6-23 15:28:28:904] Hooking successful: PreferencesAppController -> - _clearSa
vedPositionURL
[*] [2023-6-23 15:28:28:905] Hooking successful: PreferencesAppController -> - oneTimeJ
umpURL
[*] [2023-6-23 15:28:28:907] Hooking successful: PreferencesAppController -> - addBusyC
ontrollersFromRootController:
[*] [2023-6-23 15:28:28:908] Hooking successful: PreferencesAppController -> - endAndIn
validateBackgroundTask
[*] [2023-6-23 15:28:28:909] Hooking successful: PreferencesAppController -> - controll
erFinished:
[*] [2023-6-23 15:28:28:910] Hooking successful: PreferencesAppController -> - _handleB
usyControllers
[*] [2023-6-23 15:28:28:911] Hooking successful: PreferencesAppController -> - _suspend
Controllers
[*] [2023-6-23 15:28:28:912] Hooking successful: PreferencesAppController -> - _handleE
xternalApplicationChange
[*] [2023-6-23 15:28:28:913] Hooking successful: PreferencesAppController -> - _handleI
conChangeForBundleID:
[*] [2023-6-23 15:28:28:914] Hooking successful: PreferencesAppController -> - systemDi
dwake:
[*] [2023-6-23 15:28:28:915] Hooking successful: PreferencesAppController -> - signific

```

```

antTimeChange
[*] [2023-6-23 15:28:28:916] Hooking successful: PreferencesAppController -> - resetLoc
ale
[*] [2023-6-23 15:28:28:917] Hooking successful: PreferencesAppController -> - defaultI
mageSnapshotExpiration
[*] [2023-6-23 15:28:28:918] Hooking successful: PreferencesAppController -> - dealloc
[*] [2023-6-23 15:28:28:919] Hooking successful: PreferencesAppController -> - _registe
rForPowerNotifications
[*] [2023-6-23 15:28:28:920] Hooking successful: PreferencesAppController -> - _deregis
terForPowerNotifications
[*] [2023-6-23 15:28:28:921] Hooking successful: PreferencesAppController -> - _accesso
ryDidConnect:
[*] [2023-6-23 15:28:28:922] Hooking successful: PreferencesAppController -> - accessor
yDidDisconnect:
[*] [2023-6-23 15:28:28:923] Hooking successful: PreferencesAppController -> - splitVie
wController:separateSecondaryViewControllerFromPrimaryViewController:
[*] [2023-6-23 15:28:28:924] Hooking successful: PreferencesAppController -> - splitVie
wController:collapseSecondaryViewController:ontoPrimaryViewController:
[*] [2023-6-23 15:28:28:925] Hooking successful: PreferencesAppController -> - splitVie
wControllerDidPopToRootController:
[*] [2023-6-23 15:28:28:926] Hooking successful: PreferencesAppController -> - carrierB
undleChange:
[*] [2023-6-23 15:28:28:927] Hooking successful: PreferencesAppController -> - rootDoma
inConnect
[*] [2023-6-23 15:28:28:929] Hooking successful: PreferencesAppController -> - setRootD
omainConnect:
[*] [2023-6-23 15:28:28:930] Hooking successful: PreferencesAppController -> - busyCont
rollers
[*] [2023-6-23 15:28:28:931] Hooking successful: PreferencesAppController -> - setBusyC
ontrollers:
[*] [2023-6-23 15:28:28:931] Hooking successful: PreferencesAppController -> - client
[*] [2023-6-23 15:28:28:932] Hooking successful: PreferencesAppController -> - setClien
t:
[*] [2023-6-23 15:28:28:933] Hooking successful: PreferencesAppController -> - urlManag
er
[*] [2023-6-23 15:28:28:934] Hooking successful: PreferencesAppController -> - setUrlMa
nager:
[*] [2023-6-23 15:28:28:935] Hooking successful: PreferencesAppController -> - windowSc
eneClass
[*] [2023-6-23 15:28:28:936] Hooking successful: PreferencesAppController -> - setWindo
wSceneClass:
[*] [2023-6-23 15:28:28:937] Hooking successful: PreferencesAppController -> - scene
[*] [2023-6-23 15:28:28:938] Hooking successful: PreferencesAppController -> - setScene
:
[*] [2023-6-23 15:28:28:939] Hooking successful: PreferencesAppController -> - accountE
numerator
[*] [2023-6-23 15:28:28:940] Hooking successful: PreferencesAppController -> - setAccou
ntEnumerator:
[*] [2023-6-23 15:28:28:941] Hooking successful: PreferencesAppController -> - _uuidReg
ex
[*] [2023-6-23 15:28:28:942] Hooking successful: PreferencesAppController -> - set_uuid
Regex:
[*] [2023-6-23 15:28:28:943] Hooking successful: PreferencesAppController -> - .cxx_des
truct
[*] [2023-6-23 15:28:28:945] Hooking successful: PreferenceSceneDelegate -> - scene:wil
lConnectToSession:options:

```

```
[*] [2023-6-23 15:28:28:946] Hooking successful: PreferenceSceneDelegate -> - scene:openURLContexts:  
[*] [2023-6-23 15:28:28:947] Hooking successful: PreferenceSceneDelegate -> - scene:continueUserActivity:  
[*] [2023-6-23 15:28:28:948] Hooking successful: PreferenceSceneDelegate -> - windowScene:performActionForShortcutItem:completionHandler:  
[*] Completed: Hook all methods of all app only classes  
[iPhone::com.apple.Preferences ]->
```

后续操作Preferences的页面，但是却没有更多的输出。

暂时就这样，有空再深究。

crifan.org, 使用[署名4.0国际\(CC BY 4.0\)协议](#)发布 all right reserved, powered by Gitbook最后更新：  
2023-06-23 15:31:48

# ApiResolver

## 查找类 AAUISignInViewController 中的所有函数

- Frida命令

```
frida -U -p 18031 -l ./hookAccountLogin.js
```

- js文件 hookAccountLogin.js 的内容

```
var resolver = new ApiResolver('objc');
resolver.enumerateMatches('*[AAUISignInViewController *]', {
    onMatch: function(match) {
        console.log(match['name'] + ":" + match['address']);
    },
    onComplete: function() {}
});
```

- 输出

```
root@192.168.2.13 (ssh) 361 4.1 kB↓ 4.1 kB↑ 3/14, 16:10 .icDebug/frida (-zsh)
Failed to spawn: unable to find process with name 'Preferences'
x crifan@licrifandeMacBook-Pro ~/dev/dev_root/iosReverse/AppleStore/Preferences_app/dynamicDebug/frida ➔ frida -U -l ./hookAccountLogin.js -n Preferences
_____
| (.) |
| Commands:
| / (.) |   help      -> Displays the help system
| . . . |   object?   -> Display information about 'object'
| . . . |   exit/quit -> Exit
| . . . |   More info at https://frida.re/docs/home/
| . . . |   Connected to iPhone (id=abcd0dd961c3cb96f5c4afe109de4eb48b88433a)
| . . . |   Failed to spawn: unable to find process with name 'Preferences'
x crifan@licrifandeMacBook-Pro ~/dev/dev_root/iosReverse/AppleStore/Preferences_app/dynamicDebug/frida ➔ frida -U -l ./hookAccountLogin.js -p 18031
_____
| (.) |
| Commands:
| / (.) |   help      -> Displays the help system
| . . . |   object?   -> Display information about 'object'
| . . . |   exit/quit -> Exit
| . . . |   More info at https://frida.re/docs/home/
| . . . |   Connected to iPhone (id=abcd0dd961c3cb96f5c4afe109de4eb48b88433a)
Attaching...
+[AAUISignInViewController phoneNumberSupportedWithCompletion:]::0x1b30c82f4
-[AAUISignInViewController textFieldShouldChangeCharactersInRange:replacementString:]::0x1b30ce4bc
-[AAUISignInViewController tableView:viewForHeaderInSection:]::0x1b30ce40c
-[AAUISignInViewController textFieldShouldReturn:]::0x1b30ce47c
-[AAUISignInViewController _keyboardWillHide:]::0x1b30cd40
-[AAUISignInViewController titleLabel]::0x1b30c954c
-[AAUISignInViewController _keyboardWillShow:]::0x1b30cd7e8
-[AAUISignInViewController loadView]::0x1b30c872c
-[AAUISignInViewController setUsername:]::0x1b30ce81c
-[AAUISignInViewController sizeCategoryDidChange:]::0x1b30cd64
-[AAUISignInViewController _isValidCredentials:]::0x1b30cb5ec
-[AAUISignInViewController setUsername]::0x1b30ce80c
-[AAUISignInViewController tableView:numberOfRowsInSection:]::0x1b30ce170
-[AAUISignInViewController viewDidLoad]::0x1b30c878c
-[AAUISignInViewController _tableView]::0x1b30c9a70
-[AAUISignInViewController delegate:]::0x1b30ce798
-[AAUISignInViewController authenticationContext:]::0x1b30c92c4
-[AAUISignInViewController _setEnabled:]::0x1b30cb7f8
-[AAUISignInViewController _tableFooterView]::0x1b30ca644
-[AAUISignInViewController viewWillAppear:]::0x1b30cbf7c
-[AAUISignInViewController tableView:willDisplayCell:forRowAtIndexPath:]::0x1b30ce3a8
-[AAUISignInViewController remoteUIViewController:shouldLoadRequest:redirectResponse:]::0x1b30ce000
-[AAUISignInViewController _cxx_destruct]::0x1b30ce884
-[AAUISignInViewController numberOfRowsInSection:]::0x1b30ce168
-[AAUISignInViewController viewDidDisappear:]::0x1b30ce0168
-[AAUISignInViewController traitCollectionDidChange:]::0x1b30ce5cc
-[AAUISignInViewController initWithCoder:]::0x1b30cb8dc
-[AAUISignInViewController tableView:heightForRowAt IndexPath:]::0x1b30ce324
-[AAUISignInViewController tableView:viewForFooterInSection:]::0x1b30ce440
-[AAUISignInViewController tableView:cellForRowAt IndexPath:]::0x1b30ce1b0

x crifan@licrifandeMacBook-Pro ~/dev/dev_root/iosReverse/AppleStore/Preferences_app/dynamicDebug/frida ➔ frida -U -l ./hookAccountLogin.js -p 18031
```

```

/ _ | Frida 16.0.10 - A world-class dynamic instrumentation toolkit
|_ |
>_ |
/_ | Commands:
  help      -> Displays the help system
  object?    -> Display information about 'object'
  exit/quit  -> Exit

+_ + + + More info at https://frida.re/docs/home/

+_ + + + Connected to iPhone (id abdc0dd961c3cb96f5c4afe109de4eb48b88433a)
Attaching...
+ [AAUISignInViewController phoneNumberSupportedWithCompletion:] : 0x1b30c82f4
- [AAUISignInViewController textField:shouldChangeCharactersInRange:replacementString:] : 0x1b30ce4bc
- [AAUISignInViewController tableView:viewForHeaderInSection:] : 0x1b30ce40c
- [AAUISignInViewController textFieldShouldReturn:] : 0x1b30ce47c
- [AAUISignInViewController _keyboardWillHide:] : 0x1b30cda40
- [AAUISignInViewController titleLabel] : 0x1b30c954c
- [AAUISignInViewController _keyboardWillShow:] : 0x1b30cd7e8
- [AAUISignInViewController loadView] : 0x1b30c872c
- [AAUISignInViewController setUsername:] : 0x1b30ce81c
- [AAUISignInViewController sizeCategoryDidChange:] : 0x1b30cddd64
- [AAUISignInViewController _hasValidCredentials] : 0x1b30cb5ec
- [AAUISignInViewController setUsername] : 0x1b30ce80c
- [AAUISignInViewController tableView:numberOfRowsInSection:] : 0x1b30ce170
- [AAUISignInViewController viewDidLoad] : 0x1b30c878c
- [AAUISignInViewController _tableView] : 0x1b30c9a70
- [AAUISignInViewController delegate] : 0x1b30ce798
- [AAUISignInViewController authenticationContext] : 0x1b30c92c4
- [AAUISignInViewController _setEnabled:] : 0x1b30cb7f8
- [AAUISignInViewController _tableFooterView] : 0x1b30ca644
- [AAUISignInViewController viewWillAppear:] : 0x1b30c8f7c
- [AAUISignInViewController tableView:willDisplayCell:forRowAtIndexPath:] : 0x1b30ce3a8
- [AAUISignInViewController remoteUIController:shouldLoadRequest:redirectResponse:] : 0x1b30ce000
- [AAUISignInViewController .cxx_destruct] : 0x1b30ce884
- [AAUISignInViewController numberOfSectionsInTableView:] : 0x1b30ce168
- [AAUISignInViewController viewDidDisappear:] : 0x1b30c91e8
- [AAUISignInViewController traitCollectionDidChange:] : 0x1b30ce5cc
- [AAUISignInViewController initWithCoder:] : 0x1b30c86dc
- [AAUISignInViewController tableView:heightForRowAtIndexPath:] : 0x1b30ce324
- [AAUISignInViewController tableView:viewForFooterInSection:] : 0x1b30ce440
- [AAUISignInViewController tableView:cellForRowAtIndexPath:] : 0x1b30ce1b0
- [AAUISignInViewController setDelegate:] : 0x1b30ce7b8
- [AAUISignInViewController _tableHeaderView] : 0x1b30c9708
- [AAUISignInViewController tableView:shouldDrawTopSeparatorForSection:] : 0x1b30ce474
- [AAUISignInViewController messageLabel] : 0x1b30c95a0
- [AAUISignInViewController initWithNibName:bundle:] : 0x1b30c8498
- [AAUISignInViewController dealloc] : 0x1b30c9258
- [AAUISignInViewController _cancelBarButton Item] : 0x1b30c95f4
- [AAUISignInViewController viewDidLoadLayoutSubviews] : 0x1b30c9144
- [AAUISignInViewController _cancelPasswordDelegateIfNecessary] : 0x1b30ccecc
- [AAUISignInViewController context:needsPasswordWithCompletion:] : 0x1b30cdfa0
- [AAUISignInViewController _passwordCell] : 0x1b30ca1c0
- [AAUISignInViewController _textFieldDidChange:] : 0x1b30cd4d4

```

```

- [AAUISignInViewController _nextBarButtonButtonItem]:0x1b30c9638
- [AAUISignInViewController _updateConstraintsForTraitCollection]:0x1b30ce6c0
- [AAUISignInViewController _beginObservingTextFieldDidChangeNotifications]:0x1b30cd40c
- [AAUISignInViewController _beginObservingKeyboardWillShowNotifications]:0x1b30cd5f0
- [AAUISignInViewController _beginObservingSizeCategoryNotification]:0x1b30cdc9c
- [AAUISignInViewController _usernameCell]:0x1b30c9c00
- [AAUISignInViewController _updateContentInsetWithHeight]:0x1b30cdb74
- [AAUISignInViewController _endObservingSizeCategoryNotification]:0x1b30cdd04
- [AAUISignInViewController _endObservingTextFieldDidChangeNotifications]:0x1b30cd474
- [AAUISignInViewController _endObservingKeyboardWillShowNotifications]:0x1b30cd6f8
- [AAUISignInViewController _akServiceType]:0x1b30ce758
- [AAUISignInViewController _shouldAnticipatePiggybacking]:0x1b30ce778
- [AAUISignInViewController _accountsHeaderView]:0x1b30c97b0
- [AAUISignInViewController _cancelButtonSelected]:0x1b30cb96c
- [AAUISignInViewController _nextButtonSelected]:0x1b30cb978
- [AAUISignInViewController constrainView:toFillHeaderFooterView]:0x1b30cb1d0
- [AAUISignInViewController allowsAccountCreation]:0x1b30ce7cc
- [AAUISignInViewController _actionButtonSelected]:0x1b30cb9ac
- [AAUISignInViewController showServiceIcons]:0x1b30ce7ec
- [AAUISignInViewController _stringForFooter]:0x1b30cb6c4
- [AAUISignInViewController privacyLinkIdentifiers]:0x1b30ce848
- [AAUISignInViewController _showOnlyPassword]:0x1b30cccac
- [AAUISignInViewController _isGreenTeaCapable]:0x1b30cb6b8
- [AAUISignInViewController _setUsernameCellWaiting]:0x1b30cd31c
- [AAUISignInViewController _delegate_signInViewControllerDidCancel]:0x1b30cdf10
- [AAUISignInViewController _attemptAuthentication]:0x1b30cc070
- [AAUISignInViewController _prewarmSignInFlowIfApplicable]:0x1b30cc018
- [AAUISignInViewController _presentForgotAppleIDPane]:0x1b30cbf48
- [AAUISignInViewController _presentCreateAppleIDPane]:0x1b30cbe78
- [AAUISignInViewController _attemptAuthenticationWithContext]:0x1b30cc364
- [AAUISignInViewController _isPasswordFieldVisible]:0x1b30cb670
- [AAUISignInViewController _isRunningInSettings]:0x1b30cb774
- [AAUISignInViewController _repairCloudAccountWithAuthenticationResults]:0x1b30cc89c
- [AAUISignInViewController _delegate_signInViewControllerDidCompleteWithAuthenticationResults]:0x1b30cde68
- [AAUISignInViewController _authorizationValueForAuthenticationResults]:0x1b30ccd30
- [AAUISignInViewController _passwordFieldIndexPath]:0x1b30cd3f0
- [AAUISignInViewController _setPasswordFieldHidden]:0x1b30ccf68
- [AAUISignInViewController _setAkServiceType]:0x1b30ce768
- [AAUISignInViewController _setShouldAnticipatePiggybacking]:0x1b30ce788
- [AAUISignInViewController setAllowsAccountCreation]:0x1b30ce7dc
- [AAUISignInViewController setShowServiceIcons]:0x1b30ce7fc
- [AAUISignInViewController canEditUsername]:0x1b30ce828
- [AAUISignInViewController setCanEditUsername]:0x1b30ce838
- [AAUISignInViewController setPrivacyLinkIdentifiers]:0x1b30ce858
- [AAUISignInViewController showingPasswordCell]:0x1b30ce864
- [AAUISignInViewController setShowingPasswordCell]:0x1b30ce874
[iPhone::PID::18031 ]-

```

# Stalker

## 别处某示例

参考自：【iOS逆向】某营业厅算法分析\_小陈\_InfoQ写作社区

ts = TypeScript 代码：

```

var addr = 0x0000000029FD08 // loginWithPhoneNbr函数的起始地址
var mainModule = Process.enumerateModules()[0];
console.log(JSON.stringify(mainModule));
var mainName: string = mainModule.name;
var baseAddr = Module.findBaseAddress(mainName)!;
Interceptor.attach(baseAddr.add(addr), {
    onEnter: function(args) {
        console.log(addr.toString(16), "= loginWithPhoneNbr onEnter =");
        var tid = Process.getCurrentThreadId();
        Stalker.follow(tid, {
            events: {
                call: true, // CALL instructions: yes please
                ret: false, // RET instructions
                exec: false, // all instructions: not recommended as it's
                block: false, // block executed: coarse execution trace
                compile: false // block compiled: useful for coverage
            },
            transform: (iterator: StalkerArm64Iterator) => {
                let instruction = iterator.next();
                const startAddress = instruction.address;
                var isAppCode = startAddress.compare(baseAddr.add(addr)) >= 0 && startAddress.compare(baseAddr.add(addr).add(10000)) === -1;
                do {
                    if (isAppCode) {
                        if (instruction.mnemonic === "bl") {
                            iterator.putCallout((ctx) => {
                                var arm64Context = ctx as Arm64CpuContext;
                                console.log("bl x0 = " + new Objc.Object(arm64Context.x0));
                                console.log("bl x1 = " + arm64Context.x1.readCString());
                            });
                        }
                    }
                    iterator.keep();
                } while ((instruction = iterator.next()) !== null);
            }
        });
    },
    onLeave: function(retval) {
        console.log("retval:", new Objc.Object(retval));
        console.log(addr.toString(16), "= loginWithPhoneNbr onLeave =");
    }
});

```

## frida-stalker-example

别处的例子：

[misc/frida-stalker-example.py at master · poxyran/misc · GitHub](#)

```
import sys
import frida

def on_message(message, data):
    print "[%-s] -> %s" % (message, data)

def main(target_process):
    session = frida.attach(target_process)
    script = session.create_script("""
function StalkerExample()
{
    var threadIds = [];

    Process.enumerateThreads({
        onMatch: function (thread)
        {
            threadIds.push(thread.id);
            console.log("Thread ID: " + thread.id.toString());
        },
        onComplete: function ()
        {
            threadIds.forEach(function (threadId)
            {
                Stalker.follow(threadId,
                {
                    events: {call: true},
                    onReceive: function (events)
                    {
                        console.log("onReceive called.");
                    },
                    onCallSummary: function (summary)
                    {
                        console.log("onCallSummary called.");
                    }
                });
            });
        }
    });
}

StalkerExample();
""")  

    script.on('message', on_message)
    script.load()
    raw_input('[!] Press <Enter> at any time to detach from instrumented program.\n\n')
    session.detach()
```

```
if __name__ == '__main__':
    if len(sys.argv) < 2:
        print 'Usage: %s <process name or PID>' % __file__
        sys.exit(1)

try:
    target_process = int(sys.argv[1])
except ValueError:
    target_process = sys.argv[1]

main(target_process)
```

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## \_\_lldb\_unnamed\_symbol2575\$\$akd

用 Frida 的 Stalker 调试 arm64 的 akd 函数 \_\_lldb\_unnamed\_symbol2575\$\$akd :

### Frida命令

```
frida -U -n akd -l ./fridaStalker_akdSymbol2575.js
```

### js文件 fridaStalker\_akdSymbol2575.js 的内容

```
console.log("===== Frida Stalker hook for arm64 __lldb_unnamed_symbol2575$$akd =====");

// arm64 akd: __lldb_unnamed_symbol2575$$akd
// var funcRelativeStartAddr = 0x1000a0460;
var funcRelativeStartAddr = 0xa0460;
var functionSize = 0x24C8; // 9416 == 0x24C8
var funcRelativeEndAddr = funcRelativeStartAddr + functionSize;
console.log("funcRelativeStartAddr=" + funcRelativeStartAddr + ", functionSize=" + functionSize + ", funcRelativeEndAddr=" + funcRelativeEndAddr);
const moduleName = "akd";
const moduleBaseAddress = Module.findBaseAddress(moduleName);
console.log("moduleName=" + moduleName + ", moduleBaseAddress=" + moduleBaseAddress);
// console.log("moduleName=%s, moduleBaseAddress=%p", moduleName, moduleBaseAddress);
const funcRealStartAddr = moduleBaseAddress.add(funcRelativeStartAddr);
// var funcRealEndAddr = funcRealStartAddr + functionSize;
const funcRealEndAddr = funcRealStartAddr.add(functionSize);
console.log("funcRealStartAddr=" + funcRealStartAddr + ", funcRealEndAddr=" + funcRealEndAddr);
var curTid = null;
Interceptor.attach(funcRealStartAddr, {
    onEnter: function(args) {
        var arg0 = args[0]
        var arg1 = args[1]
        var arg2 = args[2]
        var arg3 = args[3]
        console.log("----- arg0=" + arg0 + ", arg1=" + arg1 + ", arg2=" + arg2 + ", arg3=" + arg3);
        var curTid = Process.getCurrentThreadId();
        console.log("curTid=", curTid);
        Stalker.follow(curTid, {
            events: {
                call: false, // CALL instructions: yes please
                ret: true, // RET instructions
                exec: false, // all instructions: not recommended as it's
                block: false, // block executed: coarse execution trace
                compile: false // block compiled: useful for coverage
            },
            // onReceive: Called with `events` containing a binary blob comprised of one or more GumEvent structs. See `gumevent.h` for details about the format. Use `Stalker.parse()` to examine the data.
        })
    }
})
```

```

onReceive(events) {
    var parsedEvents = Stalker.parse(events)
    // var parsedEventsStr = JSON.stringify(parsedEventsStr)
    // console.log("">>> into onReceive: parsedEvents=" + parsedEvents + ", "
parsedEventsStr=" + parsedEventsStr);
    console.log("">>> into onReceive: parsedEvents=" + parsedEvents);
}

// transform: (iterator: StalkerArm64Iterator) => {
transform: function (iterator) {
    // console.log("iterator=" + iterator);
    var instruction = iterator.next();
    const startAddress = instruction.address;
    // console.log("++ into iterator: startAddress=" + startAddress);
    // const isAppCode = startAddress.compare(funcRealStartAddr) >= 0 && st
artAddress.compare(funcRealEndAddr) === -1;
    // const isAppCode = (startAddress.compare(funcRealStartAddr) >= 0) &&
(startAddress.compare(funcRealEndAddr) < 0);
    const gt_realStartAddr = startAddress.compare(funcRealStartAddr) >= 0
    const lt_realEndAddr = startAddress.compare(funcRealEndAddr) < 0
    var isAppCode = gt_realStartAddr && lt_realEndAddr
    console.log("++ into iterator: startAddress=" + startAddress + ", isAp
pCode=" + isAppCode);

    // // for debug
    // isAppCode = true

    // console.log("isAppCode=" + isAppCode + ", gt_realStartAddr=" + gt_re
alStartAddr + ", lt_realEndAddr=" + lt_realEndAddr);
    do {
        if (isAppCode) {
            // is orignal function code = which we focus on

            // console.log("instruction: address=" + instruction.address
            // + ",next=" + instruction.next()
            // + ",size=" + instruction.size
            // + ",mnemonic=" + instruction.mnemonic
            // + ",opStr=" + instruction.opStr
            // + ",operands=" + JSON.stringify(instruction.operands)
            // + ",regsAccessed=" + JSON.stringify(instruction.regsAcce
ssed)
            // + ",regsRead=" + JSON.stringify(instruction.regsRead)
            // + ",regsWritten=" + JSON.stringify(instruction.regsWritt
en)
            // + ",groups=" + JSON.stringify(instruction.groups)
            // + ",toString()=" + instruction.toString()
            // + ",toJSON()=" + instruction.toJSON()
            // );

            var curRealAddr = instruction.address;
            // const isAppCode = curRealAddr.compare(funcRealStartAddr) >=
0 && curRealAddr.compare(funcRealEndAddr) === -1;
            // console.log(curRealAddr + ": isAppCode=" + isAppCode);
            var curOffsetHexPtr = curRealAddr.sub(funcRealStartAddr)
            var curOffsetInt = curOffsetHexPtr.toInt32()
        }
    }
}

```

```

        // var instructionStr = instruction.mnemonic + " " + instruction
n.opStr
        var instructionStr = instruction.toString()
        // console.log("\t" + curRealAddr + ": " + instructionStr);
        // console.log("\t" + curRealAddr + " <+" + curOffsetHexPtr + "
>: " + instructionStr);
        console.log("\t" + curRealAddr + " <+" + curOffsetInt + ">: " +
instructionStr);
        if (curOffsetInt == 8516) {
            console.log("curOffsetInt=" + curOffsetInt);
            // iterator.putCallout(needDebug);
            iterator.putCallout((context) => {
                var contextStr = JSON.stringify(context)
                console.log("contextStr=" + contextStr);
                var x9Value1 = context.x9
                var x9Value2 = context["x9"]
                console.log("x9Value1=" + x9Value1 + ", x9Value2=" + x9
Value2)
            });
        }
    }
    iterator.keep();
} while ((instruction = iterator.next()) != null);
}
});

// function needDebug(context) {
//     console.log("into needDebug");
//     // console.log("into needDebug: context=" + context);
//     // var contextStr = JSON.stringify(context, null, 2)
//     // console.log("context=" + contextStr);
//     // var x9Value1 = context.x9
//     // var x9Value2 = context["x9"]
//     // console.log("x9Value1=" + x9Value1 + ", x9Value2=" + x9Value2)
// }
},
onLeave: function(retval) {
    console.log("retval=", new ObjC.Object(retval))
    if (curTid != null) {
        Stalker.unfollow(curTid);
        console.log("Stalker.unfollow curTid=", curTid)
    }
}
});

```

## 输出

最开始输出环境初始化信息：

```

===== Frida Stalker hook for arm64 __lldb_unnamed_symbol2575 :akd =====
funcRelativeStartAddr=656480, funcSize=9416, funcRelativeEndAddr=665896
moduleName akd, moduleBaseAddress 0x1040e4000
funcRealStartAddr=0x104184460, funcRealEndAddr=0x104186928

```

```
[iPhone: akd ]-> ----- arg0 0xfffffffffffffff, arg1 0x16bf46838, arg2 0x16bf46838, arg3
=0xfffffffffffffff
curTid = 9739
```

(如果开启调试:

```
// for debug
isAppCode = true
```

则会输出)

(最初是) 一些非原始函数代码:

```
+++ into iterator: startAddress 0x106d0bcd8, isAppCode false
0x106d0bcd8 <- 45643896: b 0x106d0bce8
+++ into iterator: startAddress 0x106d0bce8, isAppCode false
0x106d0bce8 <- 45643912: str wZR, [x19, #0x90]
0x106d0bcec <- 45643916: ldr x0, [x19, #0xa0]
0x106d0bcf0 <- 45643920: str xZR, [x19, #0xa0]
0x106d0bcf4 <- 45643924: cbz x0, 0x106d0bcfc
+++ into iterator: startAddress 0x106d0bcf8, isAppCode false
0x106d0bcf8 <- 45643928: b1 0x106c0fef8
+++ into iterator: startAddress 0x106d0bcfc, isAppCode false
0x106d0bcfc <- 45643932: ldr x0, [x19, #0x98]
0x106d0bd00 <- 45643936: str xZR, [x19, #0x98]
0x106d0bd04 <- 45643940: cbz x0, 0x106d0bd14
+++ into iterator: startAddress 0x106d0bd08, isAppCode false
0x106d0bd08 <- 45643944: ldp x29, x30, [sp, #0x10]
0x106d0bd0c <- 45643948: ldp x20, x19, [sp], #0x20
0x106d0bd10 <- 45643952: b 0x106c0fef8
+++ into iterator: startAddress 0x106c0fef8, isAppCode false
0x106c0fef8 <- 44612248: stp x24, x23, [sp, #-0x40]
0x106c0fefc <- 44612252: stp x22, x21, [sp, #0x10]
0x106c0ff00 <- 44612256: stp x20, x19, [sp, #0x20]
0x106c0ff04 <- 44612260: stp x29, x30, [sp, #0x30]
0x106c0ff08 <- 44612264: add x29, sp, #0x30
0x106c0ff0c <- 44612268: mov x19, x0
0x106c0ff10 <- 44612272: add x23, x0, #8
0x106c0ff14 <- 44612276: add x20, x0, #0x10
0x106c0ff18 <- 44612280: adrp x22, 0x107d28000
0x106c0ff1c <- 44612284: adrp x21, 0x107d28000
0x106c0ff20 <- 44612288: add x21, x21, #0x790
0x106c0ff24 <- 44612292: ldar w24, [x23]
0x106c0ff28 <- 44612296: cmp w24, #2
0x106c0ff2c <- 44612300: b.lt 0x106c0ff50
+++ into iterator: startAddress 0x106c0ff30, isAppCode false
0x106c0ff30 <- 44612304: b1 0x106c12110
+++ into iterator: startAddress 0x106c0ff34, isAppCode false
0x106c0ff34 <- 44612308: sub w8, w24, #1
0x106c0ff38 <- 44612312: ldaxr w9, [x23]
0x106c0ff3c <- 44612316: cmp w9, w24
0x106c0ff40 <- 44612320: b.ne 0x106c0ff7c
0x106c0ff44 <- 44612324: stlxr w9, w8, [x23]
```

```

0x106c0ff48 < 44612328 > cbnz w9, #0x106c0ff38
+++ into iterator: startAddress 0x106c0ff4c, isAppCode false
0x106c0ff4c < 44612332 > b #0x106c0ff84
+++ into iterator: startAddress 0x106c0ff84, isAppCode false
0x106c0ff84 < 44612388 > cmp w24, #2
0x106c0ff88 < 44612392 > b.ne #0x106c10028
+++ into iterator: startAddress 0x106c0ff8c, isAppCode false
0x106c0ff8c < 44612396 > tbz w0, #0, #0x106c10028
+++ into iterator: startAddress 0x106c10028, isAppCode false
0x106c10028 < 44612552 > ldp x29, x30, [sp, #0x30]
0x106c1002c < 44612556 > ldp x20, x19, [sp, #0x20]
0x106c10030 < 44612560 > ldp x22, x21, [sp, #0x10]
0x106c10034 < 44612564 > ldp x24, x23, [sp], #0x40
0x106c10038 < 44612568 > ret
+++ into iterator: startAddress 0x106d0a104, isAppCode false
0x106d0a104 < 45636772 > ldur x8, [x29, #-0x48]
0x106d0a108 < 45636776 > adrp x9, #0x107c28000
0x106d0a10c < 45636780 > ldr x9, [x9, #0x28]
0x106d0a110 < 45636784 > ldr x9, [x9]
0x106d0a114 < 45636788 > cmp x9, x8
0x106d0a118 < 45636792 > b.ne #0x106d0a138
+++ into iterator: startAddress 0x106d0a11c, isAppCode false
0x106d0a11c < 45636796 > ldp x29, x30, [sp, #0x100]
0x106d0a120 < 45636800 > ldp x20, x19, [sp, #0xf0]
0x106d0a124 < 45636804 > ldp x22, x21, [sp, #0xe0]
0x106d0a128 < 45636808 > ldp x24, x23, [sp, #0xd0]
0x106d0a12c < 45636812 > ldp x28, x27, [sp, #0xc0]
0x106d0a130 < 45636816 > add sp, sp, #0x110
0x106d0a134 < 45636820 > ret
+++ into iterator: startAddress 0x106cb825c, isAppCode false
0x106cb825c < 45301244 > add w22, w22, #1
0x106cb8260 < 45301248 > b #0x106cb820c
+++ into iterator: startAddress 0x106cb820c, isAppCode false
0x106cb820c < 45301164 > ldr w8, [x25, #8]
0x106cb8210 < 45301168 > cmp w22, w8
0x106cb8214 < 45301172 > b.eq #0x106cb8264
+++ into iterator: startAddress 0x106cb8264, isAppCode false
0x106cb8264 < 45301252 > ldr w25, [x26, #0x10]
0x106cb8268 < 45301256 > tbnz w19, #0, #0x106cb8274
+++ into iterator: startAddress 0x106cb8274, isAppCode false
0x106cb8274 < 45301268 > ldr x21, [sp, #8]
0x106cb8278 < 45301272 > mov x0, x25
0x106cb827c < 45301276 > b1 #0x106cc899c
+++ into iterator: startAddress 0x106cb8280, isAppCode false
0x106cb8280 < 45301280 > adrp x8, #0x107d2a000
0x106cb8284 < 45301284 > ldr x0, [x8, #0x780]
0x106cb8288 < 45301288 > b1 #0x106cb8b94
+++ into iterator: startAddress 0x106cb828c, isAppCode false
0x106cb828c < 45301292 > cbz w19, #0x106cb829c
+++ into iterator: startAddress 0x106cb8290, isAppCode false
0x106cb8290 < 45301296 > ldr x8, [x20, #0x70]
0x106cb8294 < 45301300 > ldr x9, [sp, #0x10]
0x106cb8298 < 45301304 > str x8, [x9]
0x106cb829c < 45301308 > ldr x8, [x27]
0x106cb82a0 < 45301312 > cbz x8, #0x106cb82dc
+++ into iterator: startAddress 0x106cb82dc, isAppCode false

```

```

0x106cb82dc < 45301372: add x27, x20, #0x68
0x106cb82e0 < 45301376: ldr x8, [x27]
0x106cb82e4 < 45301380: str x8, [x21]
0x106cb82e8 < 45301384: tbnz w19, #0, #0x106cb82fc
+++ into iterator: startAddress 0x106cb82fc, isAppCode false
0x106cb82fc < 45301404: ldp x29, x30, [sp, #0x90]
0x106cb8300 < 45301408: ldp x20, x19, [sp, #0x80]
0x106cb8304 < 45301412: ldp x22, x21, [sp, #0x70]
0x106cb8308 < 45301416: ldp x24, x23, [sp, #0x60]
0x106cb830c < 45301420: ldp x26, x25, [sp, #0x50]
0x106cb8310 < 45301424: ldp x28, x27, [sp, #0x40]
0x106cb8314 < 45301428: add sp, sp, #0xa0
0x106cb8318 < 45301432: ret
+++ into iterator: startAddress 0x1044fc0b0, isAppCode false
0x1044fc0b0 < 3636304: add sp, sp, #0x10
0x1044fc0b4 < 3636308: ldp x1, x0, [sp], #0x10
0x1044fc0b8 < 3636312: msr nzcv, x1
0x1044fc0bc < 3636316: ldp x1, x2, [sp], #0x10
0x1044fc0c0 < 3636320: ldp x3, x4, [sp], #0x10
0x1044fc0c4 < 3636324: ldp x5, x6, [sp], #0x10
0x1044fc0c8 < 3636328: ldp x7, x8, [sp], #0x10
0x1044fc0cc < 3636332: ldp x9, x10, [sp], #0x10
0x1044fc0d0 < 3636336: ldp x11, x12, [sp], #0x10
0x1044fc0d4 < 3636340: ldp x13, x14, [sp], #0x10
0x1044fc0d8 < 3636344: ldp x15, x16, [sp], #0x10
0x1044fc0dc < 3636348: ldp x17, x18, [sp], #0x10
0x1044fc0e0 < 3636352: ldp x19, x20, [sp], #0x10
0x1044fc0e4 < 3636356: ldp x21, x22, [sp], #0x10
0x1044fc0e8 < 3636360: ldp x23, x24, [sp], #0x10
0x1044fc0ec < 3636364: ldp x25, x26, [sp], #0x10
0x1044fc0f0 < 3636368: ldp x27, x28, [sp], #0x10
0x1044fc0f4 < 3636372: ldp x29, x30, [sp], #0x10
0x1044fc0f8 < 3636376: ldp q0, q1, [sp], #0x20
0x1044fc0fc < 3636380: ldp q2, q3, [sp], #0x20
0x1044fc100 < 3636384: ldp q4, q5, [sp], #0x20
0x1044fc104 < 3636388: ldp q6, q7, [sp], #0x20
0x1044fc108 < 3636392: ldp q8, q9, [sp], #0x20
0x1044fc10c < 3636396: ldp q10, q11, [sp], #0x20
0x1044fc110 < 3636400: ldp q12, q13, [sp], #0x20
0x1044fc114 < 3636404: ldp q14, q15, [sp], #0x20
0x1044fc118 < 3636408: ldp q16, q17, [sp], #0x20
0x1044fc11c < 3636412: ldp q18, q19, [sp], #0x20
0x1044fc120 < 3636416: ldp q20, q21, [sp], #0x20
0x1044fc124 < 3636420: ldp q22, q23, [sp], #0x20
0x1044fc128 < 3636424: ldp q24, q25, [sp], #0x20
0x1044fc12c < 3636428: ldp q26, q27, [sp], #0x20
0x1044fc130 < 3636432: ldp q28, q29, [sp], #0x20
0x1044fc134 < 3636436: ldp q30, q31, [sp], #0x20
0x1044fc138 < 3636440: ldp x16, x17, [sp], #0x10
0x1044fc13c < 3636444: ret x16
+++ into iterator: startAddress 0x108040030, isAppCode false
0x108040030 < 65780688: sub sp, sp, #0xf0
0x108040034 < 65780692: stp x28, x27, [sp, #0x90]
0x108040038 < 65780696: stp x26, x25, [sp, #0xa0]
0x10804003c < 65780700: stp x24, x23, [sp, #0xb0]
0x108040040 < 65780704: ldr x16, #0x108040048

```

```
0x108040044 < 65780708 : br x16
```

之后才是：原始函数代码

```
+++ into iterator: startAddress 0x104184470, isAppCode true
0x104184470 < 16: stp x22, x21, [sp, #0xc0]
0x104184474 < 20: stp x20, x19, [sp, #0xd0]
0x104184478 < 24: stp x29, x30, [sp, #0xe0]
0x10418447c < 28: add x29, sp, #0xe0
0x104184480 < 32: nop
0x104184484 < 36: ldr x8, #0x1041d87d8
0x104184488 < 40: ldr x8, [x8]
0x10418448c < 44: stur x8, [x29, #-0x58]
0x104184490 < 48: mov w26, #0x5a87
0x104184494 < 52: movk w26, #0x6c24, lsl #16
0x104184498 < 56: add x8, x0, #6
0x10418449c < 60: cmp x8, #5
0x1041844a0 < 64: ccmn x0, #8, #4, hs
0x1041844a4 < 68: mov w8, #1
0x1041844a8 < 72: csel w8, wzr, w8, eq
0x1041844ac < 76: mov w11, #0xa5a2
0x1041844b0 < 80: movk w11, #0x93db, lsl #16
0x1041844b4 < 84: cmp x1, #0
0x1041844b8 < 88: cset w9, eq
0x1041844bc < 92: orr w8, w9, w8
0x1041844c0 < 96: add w9, w26, w8
0x1041844c4 < 100: add w9, w9, w11
0x1041844c8 < 104: sub w9, w9, #0x21
0x1041844cc < 108: adr x25, #0x1041a6cb0
0x1041844d0 < 112: nop
0x1041844d4 < 116: ldrsw x9, [x25, w9, sxtw #2]
0x1041844d8 < 120: nop
0x1041844dc < 124: ldr x10, #0x1041dd158
0x1041844e0 < 128: add x9, x9, x10
0x1041844e4 < 132: mov w22, #0xafc9
0x1041844e8 < 136: br x9
+++ into iterator: startAddress 0x1041844ec, isAppCode true
0x1041844ec < 140: mov x23, x1
0x1041844f0 < 144: mov x28, x0
0x1041844f4 < 148: eor w8, w8, #1
0x1041844f8 < 152: sub w9, w11, #0x29
0x1041844fc < 156: madd w22, w8, w9, w26
0x104184500 < 160: mov x20, #0xa930
0x104184504 < 164: movk x20, #0xea59, lsl #16
0x104184508 < 168: movk x20, #0x9bdd, lsl #32
0x10418450c < 172: movk x20, #0xd570, lsl #48
0x104184510 < 176: add w8, w22, #0xb
0x104184514 < 180: adr x24, #0x1041ddfe0
0x104184518 < 184: nop
0x10418451c < 188: ldr x8, [x24, w8, sxtw #3]
0x104184520 < 192: sub x8, x8, #2
0x104184524 < 196: mov w0, #0x18
0x104184528 < 200: str x8, [sp, #0x60]
0x10418452c < 204: blr x8
```

其中触发了 `onReceive`，对应输出的log是：

```

+++ into iterator: startAddress=0x194d31f44, isAppCode=false
+++ into iterator: startAddress=0x102e327ec, isAppCode=true
    0x102e327ec +9100 : mov w8, #0x6beb
    0x102e327f0 +9104 : movk w8, #0x3920, lsl #16
    0x102e327f4 +9108 : add w24, w21, w23
    0x102e327f8 +9112 : str xzr, [x20]
    0x102e327fc +9116 : str w8, [x20, #8]
    0x102e32800 +9120 : mov w8, #0xf28c
    0x102e32804 +9124 : movk w8, #0x3820, lsl #16
    0x102e32808 +9128 : str w8, [x20, #0xc]
    0x102e3280c +9132 : mov x8, #0x77e8
    0x102e32810 +9136 : movk x8, #0xcf06, lsl #16
    0x102e32814 +9140 : movk x8, #0xde0b, lsl #32
    0x102e32818 +9144 : movk x8, #0x20cd, lsl #48
    0x102e3281c +9148 : add x0, x19, x8
    0x102e32820 +9152 : blr x27

+++ into iterator: startAddress=0x194d30564, isAppCode=false
>>> into onReceive: parsedEvents=ret,0x1084e0038,0x1085da104,0,ret,0x1085da134,0x108588
25c,-1,ret,0x108588318,0x1036540b0,-2,ret,0x10365413c,0x10984000c,-3,ret,0x1ddc2abc0,0x
194d2e05c,0,ret,0x194d2fbdc,0x194d2dc74,1,ret,0x194d311c4,0x194d2d830,1,ret,0x194d2d898
,0x194d2e0a0,0,ret,0x1ddc2ac00,0x194d2e374,0,ret,0x194d2e3a8,0x194d31214,-1,ret,0x194d3
12e8,0x194d30478,-2,ret,0x194d304a4,0x102e30530,-3,ret,0x1ddc2abc0,0x194d2cd44,0,ret,0x
194d31894,0x194d2f0a0,1,ret,0x194d31b3c,0x194d2f0c0,1,ret,0x194d2f1ac,0x194d2cd88,0,ret
,0x1ddc2ac00,0x194d2d280,0,ret,0x194d2d2b4,0x194d3123c,-1,ret,0x194d312e8,0x194d30478,-
2,ret,0x194d304a4,0x102e305ac,-3,ret,0x1bd80959c,0x102e244e0,-2,ret,0x1ddc36aec,0x183f7
94d8,0,ret,0x183f77ab0,0x183f7958c,0,ret,0x1bd808ca8,0x1bd809c04,1,ret,0x1bd809c40,0x18
3f795a0,0,ret,0x183f7970c,0x183f795e4,0,ret,0x183f7963c,0x183f7aa34,-1,ret,0x183f7aa98,
0x102e24508,-2,ret,0x1bd808b70,0x1bd809194,-1,ret,0x1bd809240,0x102e24528,-2,ret,0x102e
24630,0x102e315c4,-3,ret,0x1ddc2abc0,0x194d2e05c,0,ret,0x194d311c4,0x194d2d830,1,ret,0x
194d2d898,0x194d2e0a0,0,ret,0x1ddc2ac00,0x194d2e374,0,ret,0x194d2e3a8,0x194d31214,-1,re
t,0x194d312e8,0x194d30478,-2,ret,0x194d304a4,0x102e316b8,-3,ret,0x1ddc2abc0,0x194d2cd44
,0,ret,0x194d31894,0x194d2ef0e4,1,ret,0x194d2f1ac,0x194d2cd88,0,ret,0x1ddc2ac00,0x194d2d
280,0,ret,0x194d2d2b4,0x194d3123c,-1,ret,0x194d312e8,0x194d30478,-2,ret,0x194d304a4,0x1
02e31744,-3,ret,0x1bd808aa4,0x1bd809b78,-2,ret,0x1bd809bb0,0x102e32168,-3,ret,0x194d305
c4,0x194d30a34,-1,ret,0x194d33380,0x194d30a50,-1,ret,0x194d30a1c,0x194d2c188,-2,ret,0x1
ddc2abc0,0x194d31c80,-2,ret,0x194d2c06c,0x194d31dec,-2,ret,0x194d31894,0x194d31e00,-2,r
et,0x194d31b3c,0x194d31eec,-2,ret,0x194d30e90,0x194d31f34,-2,ret,0x1ddc2ac00,0x102e327e
c,-3
+++ into iterator: startAddress=0x194d30584, isAppCode=false
+++ into iterator: startAddress=0x194d30588, isAppCode=false

```

再往后，就是：非原始函数代码，原始函数代码交替输出

而我们此处只关心 原始函数代码，去调试输出即可。

比如最后此刻所调试的 +8516 行的代码

```

+++ into iterator: startAddress=0x1041865a0, isAppCode=true
    0x1041865a0 <- 8512 >: mov w8, #0
    0x1041865a4 <- 8516 >: str x9, [x10]
curOffsetInt=8516
    0x1041865a8 <- 8520 >: b #0x104186740
contextStr={"pc": "0x1041865a4", "sp": "0x16bf46740", "nzcv": 1610612736, "x0": "0x0", "x1": "0x

```

```

104ba0000", "x2": "0xc", "x3": "0x29", "x4": "0x470b", "x5": "0x0", "x6": "0x0", "x7": "0xec0", "x8": "0x0", "x9": "0x3050500", "x10": "0x16bf46838", "x11": "0x6c245a87", "x12": "0x6c245a3d", "x13": "0x1041864dc", "x14": "0x45", "x15": "0x0", "x16": "0xd5709bdf0d7a48f0", "x17": "0x123209fc0", "x18": "0x0", "x19": "0xdf3221f55389ecc8", "x20": "0x1233064b0", "x21": "0x93dba5a2", "x22": "0x0", "x23": "0x39207beb", "x24": "0x6c245a87", "x25": "0x1041a6cb0", "x26": "0x6c245a87", "x27": "0x194d2c100", "x28": "0xfffffffffffffe", "fp": "0x16bf46820", "lr": "0x104186168", "q0": "0", "q1": "0", "q2": "0", "q3": "0", "q4": "0", "q5": "0", "q6": "0", "q7": "0", "q8": "0", "q9": "0", "q10": "0", "q11": "0", "q12": "0", "q13": "0", "q14": "0", "q15": "0", "q16": "0", "q17": "0", "q18": "0", "q19": "0", "q20": "0", "q21": "0", "q22": "0", "q23": "0", "q24": "0", "q25": "0", "q26": "0", "q27": "0", "q28": "0", "q29": "0", "q30": "0", "q31": "0", "d0": 0.5585262685374610e-308, "d1": 0.0000169759663317e-308, "d2": 7.9499288951273454e-275, "d3": 0, "d4": 0, "d5": 0, "d6": 0, "d7": 0, "d8": 0, "d9": 0, "d10": 0, "d11": 0, "d12": 0, "d13": 0, "d14": 0, "d15": 0, "d16": 1.0855813867524649e+251, "d17": 0.000002084565455e-308, "d18": 3.0554698911305689e-152, "d19": 0.000001322084152e-308, "d20": 3.7696966457559071e-175, "d21": 1.000489495531618e+128, "d22": 9.5944260775693913e+225, "d23": -6.8154492514793903e-236, "d24": -2.1930923744387854e+50, "d25": -3.1153191556287330e+141, "d26": -1.0031492505499153e+302, "d27": 3.1584786060327890e-284, "d28": 1.7036104465458726e+239, "d29": -1.1538744009003510e-197, "d30": 2.4944484440662111e-259, "d31": 0, "s0": 1.1035169354619356e-39, "s1": 1.1210387714598533e-44, "s2": 3.8204714345426298e-37, "s3": 0, "s4": 0, "s5": 0, "s6": 0, "s7": 0, "s8": 0, "s9": 0, "s10": 0, "s11": 0, "s12": 0, "s13": 0, "s14": 0, "s15": 0, "s16": 1.5548730664783592e-21, "s17": -1.3084408235578860e+36, "s18": 8.6088756618229034e-23, "s19": -5.408784745233076e-20, "s20": 4.2151578028428229e+37, "s21": 18362722504671230, "s22": 3.372155249992253e+28, "s23": -7.6784630118876258e-30, "s24": -3715189.5, "s25": 2.6426119211413095e+23, "s26": -3.5724724140742379e-23, "s27": 1.6239861190373424e-18, "s28": -205533200, "s29": -0.008124308660626411, "s30": -5.6424941355004989e-36, "s31": 0}
x9Value1 0x3050500, x9Value2 0x3050500

```

输出了我们所希望的值：

- x9 = 0x3050500

即可实现特定的调试目的。

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# Android

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## 安卓hook的demo示例

此处给出，普通的，用Frida去hook安卓的某个app时候的，js脚本的demo示例：

- hook\_androidApp.js

```
/**
 * Update: 20240721
 * Usage:
 *   frida -U -f your.app.package -l hook_androidApp.js
 */

// **** Const & Config ****
// **** Common Util ****

// enumerate all methods declared in a Java class
function enumMethods(targetClass)
{
    var hook = Java.use(targetClass);
    var ownMethods = hook.class.getDeclaredMethods();
    console.log("use getDeclaredMethods")

    // var ownMethods = hook.class.getMethods();
    // console.log("use getMethods")

    hook.$dispose;
    return ownMethods;
}

// enumerate all property=field declared in a Java class
function enumProperties(targetClass)
{
    var hook = Java.use(targetClass);
    // var ownMethods = hook.class.getFields();
    // console.log("use getFields")

    var ownFields = hook.class.getDeclaredFields();
    console.log("use getDeclaredFields")

    hook.$dispose;
    return ownFields;
}

// print single java class all Functions=Methods and Fields=Properties
function printClassAllMethodsFields(javaClassName){
    console.log("===== " + "Class: " + javaClassName + " =====")
    console.log("----" + "All Properties" + "----")
}
```

```

var allProperties = enumProperties(javaClassName)
allProperties.forEach(function(singleProperty) {
    console.log(singleProperty)
})

console.log("-----" + "All Methods" + "-----")
// enumerate all methods in a class
var allMethods = enumMethods(javaClassName)
allMethods.forEach(function(singleMethod) {
    console.log(singleMethod)
})
console.log("")

}

/*
 * Main Hook
 */
*****



function hookSomeApp() {
    var SomeClassName = "xxx.yyy.zzz"
    printClassAllMethodsFields(SomeClassName)

    var SomeCls = Java.use(SomeClassName)
    console.log("SomeCls=" + SomeCls)

    // then do what you want
}

function hookAndroid() {
    if(!Java.available){
        console.error("Java is not available")
        return
    }

    console.log("Java is available")
    console.log("Java.androidVersion=" + Java.androidVersion)

    Java.perform(function () {
        hookSomeApp()
    })
}

setImmediate(hookAndroid)

```

调用：

```
frida -U -f your.app.package -l hook_androidApp.js
```

## 单个类

去用Frida去hook调试Java单个类的写法举例：

对于jadx反编译出的抖音的源码：

- sources/X/C660690Pru.java

```
package X;
...

/* renamed from: X.0Pru, reason: invalid class name and case insensitive filesystem */
/* loaded from: classes9.dex */
public class C660690Pru extends TransmitThread {
    public int LIZ;
    public final /* synthetic */ AbstractC660680Prt LIZIZ;

    ...
    @Override // com.ss.android.ugc.bytex.async.stack.delegate.TransmitThread, com.ss.android.ugc.bytex(pthread.base.proxy.PthreadThreadV2, java.lang.Thread, java.lang.Runnable
    /*
        Code decompiled incorrectly, please refer to instructions dump.
     */
    public void run() {
    }

    public final void LIZ() {
    }

    /*
        JADYX WARN: 'super' call moved to the top of the method (can break code semantics
     */
    public C660690Pru(AbstractC660680Prt abstractC660680Prt) {
        super("DeviceRegisterThread");
        this.LIZIZ = abstractC660680Prt;
    }

    ...

    private boolean LIZ(JSONObject jsonObject) {
    }

    private boolean LIZ(String str, JSONObject jsonObject) {
    }
}
```

想要去打印出，当前类的所有函数和属性，可以用如下（核心）代码：

- hook\_douyin.js

```
***** X.C660690Pru *****
var X0PruClassName = "X.0Pru"
printClassAllMethodsFields(X0PruClassName)

var X0PruCls = Java.use(X0PruClassName)
console.log("X0PruCls=" + X0PruCls)
```

- 说明
  - 关于被hook的类名
    - 注意此处jadex是反编译失败，注释
      - /\* renamed from: X.0Pru
    - 中的 X.0Pru，才是真正的类名
    - 而不是，此处被改名后的： public class C660690Pru extends TransmitThread 中的 C660690Pru
  - 关于工具类函数： printClassAllMethodsFields
    - 详见：[函数和属性](#)
- 调用=调试运行

```
frida -U -f com.ss.android.ugc.aweme -l hook_douyin.js
```

- 输出

```
===== Class: X.0Pru =====
-----All Properties-----
use getDeclaredFields
public int X.0Pru.LIZ
public final X.0Prt X.0Pru.LIZIZ
-----All Methods-----
use getDeclaredMethods
private boolean X.0Pru.LIZ(java.lang.String,org.json.JSONObject)
private boolean X.0Pru.LIZ(org.json.JSONObject)
public final void X.0Pru.LIZ()
public void X.0Pru.run()

X0PruCls= class: X.0Pru>
```

## 单个类的单个函数

举例：想要hook前面的类 X.0Pru 的函数：

### 普通函数 = 不带重载的函数

直接去hook：

```
// public void run() {
// public void X.0Pru.run()
var X0PruFuncRun = X0PruCls.run
// var X0PruFuncRun = X0PruCls.run()
console.log("X0PruFuncRun=" + X0PruFuncRun)
if (X0PruFuncRun) {
    X0PruFuncRun.implementation = function () {
        // add what you want
        return this.run()
    }
}
```

### 加上：打印函数调用堆栈

如果想要，hook的函数触发时，打印函数调用堆栈，可以用：

```
// public void run() {
// public void X.0Pru.run()
var X0PruFuncRun = X0PruCls.run
// var X0PruFuncRun = X0PruCls.run()
console.log("X0PruFuncRun=" + X0PruFuncRun)
if (X0PruFuncRun) {
    X0PruFuncRun.implementation = function () {
        var funcName = "X.0Pru.run"
        var funcParaDict = {}
        printFunctionCallAndStack(funcName, funcParaDict, Throwables)
        return this.run()
    }
}
```

- 说明
  - 关于工具类函数 printFunctionCallAndStack 的源码
    - 详见：[函数调用堆栈](#)
- 输出举例

```
X.0Pru.run:
Stack: X.0Pru.run(Native Method)
    at kotlin.jvm.internal.ELambdaS640S0100000_23.invoke$35(SourceFile:33882174)
    at kotlin.jvm.internal.ELambdaS640S0100000_23.invoke(Unknown Source:74)
```

```

    at com.ss.android.ugc.bytex(pthread.base.convergence.core.ThreadWorker.run(Unknown
Source:101)
    at java.util.concurrent.ThreadPoolExecutor.runWorker(ThreadPoolExecutor.java:1137)
    at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:637)
    at com.ss.android.ugc.bytex(pthread.base.convergence.core.ExemptThreadFactory$newTh
read$t$1.run(Unknown Source:39)
    at java.lang.Thread.run(Thread.java:1012)

```

## 带重载的函数

需要用 `overload` 指定对应对应是具体哪个函数：

- `public final void LIZ()`

```

// /* JADX WARN: Type inference failed for: r0v20, types: [X.0PmX] */
// public final void LIZ() {
//     public final void X.0Pru.LIZ()
//     var X0PruFuncLIZ_0 = X0PruCls.LIZ
//     var X0PruFuncLIZ_0 = X0PruCls.LIZ.overload('java.lang.String', 'org.json.JSONObject')
//     var X0PruFuncLIZ_0 = X0PruCls.LIZ.overload()
//     console.log("X0PruFuncLIZ_0=" + X0PruFuncLIZ_0)
//     if (X0PruFuncLIZ_0) {
//         X0PruFuncLIZ_0.implementation = function () {
//             return this.LIZ()
//         }
//     }
// }

```

- `private boolean LIZ(JSONObject jsonObject)`

```

// private boolean LIZ(JSONObject jsonObject) {
//     private boolean X.0Pru.LIZ(org.json.JSONObject)
//     var X0PruFuncLIZ_1 = X0PruCls.LIZ.overload('org.json.JSONObject')
//     console.log("X0PruFuncLIZ_1=" + X0PruFuncLIZ_1)
//     if (X0PruFuncLIZ_1) {
//         X0PruFuncLIZ_1.implementation = function (jsonObject) {
//             return this.LIZ(jsonObject)
//         }
//     }
// }

```

- `private boolean LIZ(String str, JSONObject jsonObject)`

```

// private boolean X.0Pru.LIZ(java.lang.String,org.json.JSONObject)
// private boolean LIZ(String str, JSONObject jsonObject) {
//     var X0PruFuncLIZ_2 = X0PruCls.LIZ.overload('java.lang.String', 'org.json.JSONObject')
//     console.log("X0PruFuncLIZ_2=" + X0PruFuncLIZ_2)
//     if (X0PruFuncLIZ_2) {
//         X0PruFuncLIZ_2.implementation = function (str, jsonObject) {
//             return this.LIZ(str, jsonObject)
//         }
//     }
// }

```



## hookForceStop

调用：

```
frida -U -n system_server -l hook_systemServer.js

frida -U -f com.android.settings -l hook_systemServer.js
```

对应脚本：

- hook\_systemServer.js

```
/**
 * Update: 20230920
 * Usage:
 *   frida -U -n system_server -l hook_systemServer.js
 *
 *   frida -U -f com.android.settings -l hook_systemServer.js
 */

//***** Const & Config *****

let CurAppPkgName = "com.wallpaper.hd.funny"

// Enable Not Call Filter
let enableNotCallFilter_Binder_execTransact = false

let enableNotCallFilter_AMS_startService = false
let enableNotCallFilter_AMS_startProcessLocked = false

let enableNotCallFilter_ActiveServices_bringUpServiceLocked = true
// let enableNotCallFilter_ActiveServices_bringUpServiceLocked = false

let enableNotCallFilter_ActiveServices_startServiceLocked = false
let enableNotCallFilter_ActiveServices_startServiceInnerLocked = false

let enableNotCallFilter_ProcessList_startProcessLocked = false
let enableNotCallFilter_ProcessList_handleProcessStartedLocked = false

let enableNotCallFilter_ContentProviderHelper_getContentProviderImpl = true
// let enableNotCallFilter_ContentProviderHelper_getContentProviderImpl = false

// let enableNotCallFilter_BroadcastQueue_processNextBroadcastLocked = false

let enableNotCallFilter_Handler_dispatchMessage = true
// let enableNotCallFilter_Handler_dispatchMessage = false

//***** Common Util *****
```

```
******/
```

```
// convert Object(dict/list/...) to JSON string
function toJsonStr(curObj, singleLine = false, space = 2){
    // console.log("toJsonStr: singleLine=" + singleLine)
    // var jsonStr = JSON.stringify(curObj, null, 2)
    var jsonStr = JSON.stringify(curObj, null, space)
    if(singleLine) {
        // jsonStr = jsonStr.replace(/\n/g, '')
        jsonStr = jsonStr.replace(/\n/g, '')
    }
    return jsonStr
    // return curObj.toString()
}

function describeJavaClass(className) {
    var jClass = Java.use(className);
    console.log(JSON.stringify({
        _name: className,
        _methods: Object.getOwnPropertyNames(jClass.__proto__).filter(m => {
            // _methods: Object.getOwnPropertyDescriptor(jClass.__proto__).filter(m => {
            // _methods: Object.getOwnPropertySymbols(jClass.__proto__).filter(m => {
                return m.startsWith('$') // filter out Frida related special properties
                    || m == 'class' || m == 'constructor' // optional
            }),
            _fields: jClass.class.getFields().map(f => {
                return f.toString()
            })
        }, null, 2))
    })
}

// enumerate all methods declared in a Java class
function enumMethods(targetClass)
{
    var hook = Java.use(targetClass);
    var ownMethods = hook.class.getDeclaredMethods();
    console.log("use getDeclaredMethods")

    // var ownMethods = hook.class.getMethods();
    // console.log("use getMethods")

    hook.$dispose;
    return ownMethods;
}

// enumerate all property=field declared in a Java class
function enumProperties(targetClass)
{
    var hook = Java.use(targetClass);
    // var ownMethods = hook.class.getFields();
    // console.log("use getFields")

    var ownFields = hook.class.getDeclaredFields();
    console.log("use getDeclaredFields")
```

```

hook.$dispose;
return ownFields;
}

// print single java class all Functions=Methods and Fields=Properties
function printClassAllMethodsFields(javaClassName){
  console.log("===== " + "Class: " + javaClassName + " =====")
  console.log("----" + "All Properties" + "----")
  var allProperties = enumProperties(javaClassName)
  allProperties.forEach(function(singleProperty) {
    console.log(singleProperty)
  })

  console.log("----" + "All Methods" + "----")
  // enumerate all methods in a class
  var allMethods = enumMethods(javaClassName)
  allMethods.forEach(function(singleMethod) {
    console.log(singleMethod)
  })
  console.log("")
}

// generate current stack trace string
function genStackStr(ThrowableCls) {
  let newThrowable = ThrowableCls.$new()
  // console.log("genStackStr: newThrowable=" + newThrowable)
  var stackElements = newThrowable.getStackTrace()
  // console.log("genStackStr: stackElements=" + stackElements)
  var stackStr = "Stack: " + stackElements[0] //method//stackElements[0].getMethodName()

  for (var i = 1; i < stackElements.length; i++) {
    stackStr += "\n      at " + stackElements[i]
  }
  // stackStr = "\n\n" + stackStr
  stackStr = stackStr + "\n"
  // console.log("genStackStr: stackStr=" + stackStr)

  return stackStr
}

// 打印当前调用堆栈信息 print call stack
function PrintStack(ThrowableCls) {
  var stackStr = genStackStr(ThrowableCls)
  console.log(stackStr)

  // let newThrowable = ThrowableCls.$new()
  // let curLog = Java.use("android.util.Log")
  // let stackStr = curLog.getStackTraceString(newThrowable)
  // console.log("stackStr=" + stackStr)
}

// generate Function call string
function genFunctionCallStr(funcName, funcParaDict){
  var logStr = `${funcName}:`
  // var logStr = funcName + ":"
```

```

var isFirst = true

for(var curParaName in funcParaDict){
    let curParaValue = funcParaDict[curParaName]
    var prevStr = ""
    if (isFirst){
        prevStr = " "
        isFirst = false
    } else {
        prevStr = ", "
    }

    logStr = `${logStr}${prevStr}${curParaName}=` + curParaValue
    // logStr = logStr + prevStr + curParaName + "=" + curParaValue
}

return logStr
}

// print Function call and stack trace string
function printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls, filterList=undefined){
    // console.log("filterList=" + filterList)

    var needPrint = true

    var functionCallStr = genFunctionCallStr(funcName, funcParaDict)

    var stackStr = genStackStr(ThrowableCls)

    if (filterList != undefined) {
        needPrint = false

        for (const curFilter of filterList) {
            // console.log("curFilter=" + curFilter)
            if (stackStr.includes(curFilter)) {
                needPrint = true
                // console.log("needPrint=" + needPrint)
                break
            }
        }
    }

    if (needPrint) {
        var functionCallAndStackStr = `${functionCallStr}\n${stackStr}`
        // var functionCallAndStackStr = functionCallStr + "\n" + stackStr

        // return functionCallAndStackStr
        console.log(functionCallAndStackStr)
    }
}

// find loaded classes that match a pattern (async)
function findClass(pattern)
{
    console.log("Finding all classes that match pattern: " + pattern + "\n");
}

```

```

Java.enumerateLoadedClasses({
    onMatch: function(aClass) {
        if (aClass.match(pattern))
            console.log(aClass)
    },
    onComplete: function() {}
});
}

/*
----- Android Utils -----
----- */

function printProcessRecord(curProcessRecord){
    console.log("printProcessRecord: curProcessRecord=" + curProcessRecord)
    console.log(" mService=" + curProcessRecord.mService.value)
    console.log(" mProcLock=" + curProcessRecord.mProcLock.value)
    console.log(" info=" + curProcessRecord.info.value)
    console.log(" processInfo=" + curProcessRecord.processInfo.value)
    console.log(" isolated=" + curProcessRecord.isolated.value)
    console.log(" isSdkSandbox=" + curProcessRecord.isSdkSandbox.value)
    console.log(" appZygote=" + curProcessRecord.appZygote.value)
    console.log(" uid=" + curProcessRecord.uid.value)
    console.log(" userId=" + curProcessRecord.userId.value)
    console.log(" processName=" + curProcessRecord.processName.value)
    console.log(" sdkSandboxClientAppPackage=" + curProcessRecord.sdkSandboxClientAppPac
kage.value)
    console.log(" sdkSandboxClientAppVolumeUuid=" + curProcessRecord.sdkSandboxClientApp
VolumeUuid.value)
}

function getParcelInfo(curParcel){
    var parcelDataSize = curParcel.dataSize()
    var parcelDataCapacity = curParcel.dataCapacity()
    // var parcelDataPosition = curParcel.dataPosition()
    // var parcelInfoStr = "dataSize=" + parcelDataSize + ", dataCapacity=" + parcelDataC
apacity + ", dataPositon = " + parcelDataPosition
    var parcelInfoStr = "Parcel: " + curParcel + ", dataSize=" + parcelDataSize + ", data
Capacity=" + parcelDataCapacity
    return parcelInfoStr
}

// try to read Parcel string
function tryReadParcelString(curParcel){
    var parcelDataSize = curParcel.dataSize()
    // console.log("curParcel=" + curParcel + ": parcelDataSize=" + parcelDataSize)
    let StepSize = 4

    var isFoundStr = false
    var strDictList = []

    var curStr = null
    var curStepSize = 0
    // var foundStr = null
    // var strPos = -1
}

```

```

var foundStrNum = 0
for (var curPos = 0; curPos < parcelDataSize; curPos++) {
    curStepSize = StepSize
    curParcel.setDataPosition(curPos)
    curStr = curParcel.readString()
    if (curStr){
        if (curStr === "") {
            // empty string, continue try read other string
        } else {
            isFoundStr = true
            foundStrNum += 1

            // foundStr = curStr
            // strPos = curPos
            // console.log(" [" + curPos + "] string=" + curStr)
            // console.log(" [" + strPos + "] string=" + foundStr)
            var curStrDict = {"str": curStr, "pos": curPos}
            strDictList.push(curStrDict)
            var newPosition = curParcel.dataPosition()
            var posDiff = newPosition - curPos
            curStepSize = posDiff
            // console.log(" [" + foundStrNum + "] strDict=" + toJsonStr(curStrDict, true)
            + ", pos: " + curPos + " -> " + newPosition +", curStepSize=" + curStepSize)
            // break
        }
    }
    curPos += curStepSize
}

// setDataPosition and readString maybe CHANGED position, so need reset position
curParcel.setDataPosition(0)

// if(isFoundStr){
//     // var logStr = toJsonStr(strDictList, true, 1)
//     // var logStr = toJsonStr(strDictList, true, 0)
//     // console.log(" logStr=" + logStr)
// }

return {
    "isFoundStr": isFoundStr,
    "strDictList": strDictList
}
}

// print Intent info
function printIntentInfo(curIntent){
    console.log("printIntentInfo: curIntent=" + curIntent)
    var curComponent = curIntent.getComponent()
    console.log(" Intent component=" + curComponent)
    if (curComponent) {
        var pkgName = curComponent.getPackageName()
        var clsName = curComponent.getClassName()
        var shortClsName = curComponent.getShortClassName()
        var flattenedShortStr = curComponent.flattenToShortString()
        var flattenedStr = curComponent.flattenToString()
        console.log(" Intent Component info: pkgName=" + pkgName + ", clsName=" + clsName
    }
}

```

```

e + ", shortClsName=" + shortClsName + ", flattenedStr=" + flattenedStr + ",flattenedS
hortStr=" + flattenedShortStr)
}

}

//*****
* Main Hook
*****/


function hookNativeFunc(){
    // /Users/crifan/dev/dev_src/androidReverse/Android/android.googlesource.com/base-ref
s_heads_main/core/jni/android_util_Binder.cpp
    // status_t onTransact( uint32_t code, const Parcel& data, Parcel* reply, uint32_t fl
ags = 0) override {
        // var foundOnTransact = Module.findExportByName(null, "onTransact")

        // let transactModuleName = "libBinder.so"
        // let transactModuleName = "libbinder.so"
        let transactModuleName = "libbinder_ndk.so"

        var foundOnTransact = Module.findExportByName(transactModuleName, "onTransact")

        console.log("foundOnTransact=" + foundOnTransact)
        if (foundOnTransact) {
            Interceptor.attach(foundOnTransact, {
                onEnter: function(args) {
                    var code = args[0]
                    var data = args[1]
                    var reply = args[2]
                    var flags = args[3]
                    console.log("onTransact: code=" + code + ", data=" + data + ", reply=" + reply +
", flags=" + flags)
                },
                onLeave: function(retval) {
                    console.log("onTransact: retval=" + retval)
                }
            })
        }

        // var foundTransact = Module.findExportByName(null, "transact")
        var foundTransact = Module.findExportByName(transactModuleName, "transact")
        console.log("foundTransact=" + foundTransact)
    }
}

function hookPrintTransactCodeValue(){
    // -----
    var IActivityManagerStubClassName = "android.app.IActivityManager$Stub"
    var IActivityManagerStubCls = Java.use(IActivityManagerStubClassName)
    console.log("IActivityManagerStubCls=" + IActivityManagerStubCls)
    // printClassAllMethodsFields(IActivityManagerStubClassName)

    // console.log("IActivityManager$Stub: code_startService=" + code_startService + ",
code_broadcastIntent=" + code_broadcastIntent + ", code_startInstrumentation=" + code_
startInstrumentation + ", code_unbindService=" + code_unbindService)
    var TRANSACTION_startService = IActivityManagerStubCls.TRANSACTION_startService.val
}

```

```

ue
    console.log("TRANSACTION_startService=" + TRANSACTION_startService)
    var TRANSACTION_broadcastIntent = IActivityManagerStubCls.TRANSACTION_broadcastIntent.value
        console.log("TRANSACTION_broadcastIntent=" + TRANSACTION_broadcastIntent)
    var TRANSACTION_unbindService = IActivityManagerStubCls.TRANSACTION_unbindService.value
        console.log("TRANSACTION_unbindService=" + TRANSACTION_unbindService)
    var TRANSACTION_publishService = IActivityManagerStubCls.TRANSACTION_publishService.value
        console.log("TRANSACTION_publishService=" + TRANSACTION_publishService)
    var TRANSACTION_startInstrumentation = IActivityManagerStubCls.TRANSACTION_startInstrumentation.value
        console.log("TRANSACTION_startInstrumentation=" + TRANSACTION_startInstrumentation)
    var TRANSACTION_startActivity = IActivityManagerStubCls.TRANSACTION_startActivity.value
        console.log("TRANSACTION_startActivity=" + TRANSACTION_startActivity)
    // var TRANSACTION_startActivityAndWait = IActivityManagerStubCls.TRANSACTION_startActivityAndWait.value
        // console.log("TRANSACTION_startActivityAndWait=" + TRANSACTION_startActivityAndWait)
    // var TRANSACTION_startActivityAsCaller = IActivityManagerStubCls.TRANSACTION_startActivityAsCaller.value
        // console.log("TRANSACTION_startActivityAsCaller=" + TRANSACTION_startActivityAsCaller)
    var TRANSACTION_startActivityAsUser = IActivityManagerStubCls.TRANSACTION_startActivityAsUser.value
        console.log("TRANSACTION_startActivityAsUser=" + TRANSACTION_startActivityAsUser)
    var TRANSACTION_startActivityFromRecents = IActivityManagerStubCls.TRANSACTION_startActivityFromRecents.value
        console.log("TRANSACTION_startActivityFromRecents=" + TRANSACTION_startActivityFromRecents)
    // var TRANSACTION_startActivityIntentSender = IActivityManagerStubCls.TRANSACTION_startActivityIntentSender.value
        // console.log("TRANSACTION_startActivityIntentSender=" + TRANSACTION_startActivityIntentSender)
    // var TRANSACTION_startActivityWithConfig = IActivityManagerStubCls.TRANSACTION_startActivityWithConfig.value
        // console.log("TRANSACTION_startActivityWithConfig=" + TRANSACTION_startActivityWithConfig)

    var TRANSACTION_registerUidObserver = IActivityManagerStubCls.TRANSACTION_registerUidObserver.value
        console.log("TRANSACTION_registerUidObserver=" + TRANSACTION_registerUidObserver)
    var TRANSACTIONUnhandledBack = IActivityManagerStubCls.TRANSACTIONUnhandledBack.value
        console.log("TRANSACTIONUnhandledBack=" + TRANSACTIONUnhandledBack)
    var TRANSACTION_registerReceiver = IActivityManagerStubCls.TRANSACTION_registerReceiver.value
        console.log("TRANSACTION_registerReceiver=" + TRANSACTION_registerReceiver)
    var TRANSACTION_attachApplication = IActivityManagerStubCls.TRANSACTION_attachApplication.value
        console.log("TRANSACTION_attachApplication=" + TRANSACTION_attachApplication)
    // var TRANSACTION_activityIdle = IActivityManagerStubCls.TRANSACTION_activityIdle.value
        // console.log("TRANSACTION_activityIdle=" + TRANSACTION_activityIdle)

```

```

var TRANSACTION_stopService = IActivityManagerStubCls.TRANSACTION_stopService.value
console.log("TRANSACTION_stopService=" + TRANSACTION_stopService)
var TRANSACTION_bindService = IActivityManagerStubCls.TRANSACTION_bindService.value
console.log("TRANSACTION_bindService=" + TRANSACTION_bindService)
var TRANSACTION_noteWakeupAlarm = IActivityManagerStubCls.TRANSACTION_noteWakeupAla
rm.value
  console.log("TRANSACTION_noteWakeupAlarm=" + TRANSACTION_noteWakeupAlarm)
  var TRANSACTION_openContentUri = IActivityManagerStubCls.TRANSACTION_openContentUri.
value
    console.log("TRANSACTION_openContentUri=" + TRANSACTION_openContentUri)
  var TRANSACTION_finishReceiver = IActivityManagerStubCls.TRANSACTION_finishReceiver.
value
    console.log("TRANSACTION_finishReceiver=" + TRANSACTION_finishReceiver)
  // var TRANSACTION_startNextMatchingActivity = IActivityManagerStubCls.TRANSACTION_
startNextMatchingActivity.value
  // console.log("TRANSACTION_startNextMatchingActivity=" + TRANSACTION_startNextMatc
hingActivity)

  var TRANSACTION_finishActivity = IActivityManagerStubCls.TRANSACTION_finishActivity.
value
  console.log("TRANSACTION_finishActivity=" + TRANSACTION_finishActivity)
}

function hookForceStop() {
  if(!Java.available){
    console.error("Java is not available")
    return
  }

  console.log("Java is available")
  console.log("Java.androidVersion=" + Java.androidVersion)

Java.perform(function () {

  const ValidTransactCodeList = [
    // 24,
    // 26,
    // 27,
    // 28,
    // 29,
    // 30,
    // 34,

    3, // f12217h = START_ACTIVITY_TRANSACTION = 2+1 = 3
    8, // TRANSACTION_startActivity= 7+1 = 8

    27, // serviceCode = TRANSACTION_startService = 27
    // 34, // serviceCode = START_SERVICE_TRANSACTION = 33+1 = 34

    29, // TRANSACTION_bindService = 29

    15, // broadcastCode = TRANSACTION_broadcastIntent = 14+1 = 15
    // 14, // broadcastCode = BROADCAST_INTENT_TRANSACTION = 13+1 = 14, TRANSACTION_r
emoveAccountExplicitly = 13+1 = 14

    37, // instrumentationCode = TRANSACTION_startInstrumentation = 36+1= 37
  ]
})
}

```

```

    // 44, // instrumentationCode = START_INSTRUMENTATION_TRANSACTION = 43+1= 44
]

hookNativeFunc()

var ThrowableCls = Java.use("java.lang.Throwable")
console.log("ThrowableCls=" + ThrowableCls)
let curLog = Java.use("android.util.Log")
console.log("curLog=" + curLog)
let Parcel = Java.use("android.os.Parcel")
console.log("Parcel=" + Parcel)

// // com.android.server.wm.ActivityStarter
// var serverCls = Java.use("com.android.server")
// console.log("serverCls=" + serverCls)
// var wmCls = serverCls.wm
// console.log("wmCls=" + wmCls)
// var ActivityStarterCls = wmCls.ActivityStarter
// console.log("ActivityStarterCls=" + ActivityStarterCls)
// // private int executeRequest(Request request) {

// hookPrintTransactCodeValue()

// ----- android.os.Binder
var BinderCls = Java.use("android.os.Binder")
console.log("BinderCls=" + BinderCls)

// private boolean execTransact(int code, long dataObj, long replyObj, int flags)
var execTransactFunc = BinderCls.execTransact
console.log("execTransactFunc=" + execTransactFunc)

if (execTransactFunc) {
    execTransactFunc.implementation = function (code, dataObj, replyObj, flags) {
        var shouldCallOrigFunc = true
        // var logStr = ""

        // if (ValidTransactCodeList.includes(code)) {
        var dataParcel = Parcel.obtain(dataObj)

        // var replyParcel = Parcel.obtain(replyObj)
        // var dataParcelStr = dataParcel.toString()
        // var replyParcelStr = replyParcel.toString()
        // console.log("dataParcelStr=" + dataParcelStr + ", replyParcelStr=" + replyP
acelStr)
        var curParcelDataSize = dataParcel.dataSize()
        // console.log("curParcelDataSize=" + curParcelDataSize)
        if (curParcelDataSize > 0) {
            // let interfaceTokenStartPos = 1
            // let interfaceTokenStartPos = 0
            // let interfaceTokenStartPos = 4
            // let interfaceTokenStartPos = 8
            // dataParcel.setDataPosition(interfaceTokenStartPos)
            // var interfaceTokenStr = dataParcel.readString()
            // console.log("interfaceTokenStr=" + interfaceTokenStr)

            // var parcelStr = tryReadParcelString(dataParcel)

```

```

// var {parcelStr, strPos} = tryReadParcelString(dataParcel)
var readResultDict = tryReadParcelString(dataParcel)
// console.log("parcelStr=" + parcelStr + ", strPos=" + strPos)
var isFoundStr = readResultDict.isFoundStr
var strDictList = readResultDict.strDictList
if (isFoundStr) {
    // var foundStrLog = ""
    var strDictListStr = toJsonStr(strDictList, true, 0)
    // console.log("Binder.execTransact: code=" + code + ", dataObj=" + dataObj + ", replyObj=" + replyObj + ", flags=" + flags)
    var execTransactCallStr = "Binder.execTransact: code=" + code + ", dataObj=" + dataObj + ", replyObj=" + replyObj + ", flags=" + flags
    // console.log(execTransactCallStr)

    var dataParcelInfoStr = getParcelInfo(dataParcel)
    // var replyParcelInfoStr = getParcelInfo(replyParcel)
    // console.log("dataParcelInfoStr=" + dataParcelInfoStr + ", replyParcelInfoStr=" + replyParcelInfoStr)
    // console.log("  dataParcel: strDictListStr=" + strDictListStr + ", infoStr=" + dataParcelInfoStr)
    var dataParcelCurAppStr = "  dataParcel: strDictListStr=" + strDictListStr + ", infoStr=" + dataParcelInfoStr
    // console.log(dataParcelCurAppStr)

    // for debug: found string not empty, then not call origin transact -> try find this function is true core trigger service or not
    // if (parcelStr) {
    // if (parcelStr === CurAppPkgName) {
    var isCurApp = false
    for (var idx = 0; idx < strDictList.length; idx++) {
        var curStrDict = strDictList[idx]
        var curPos = curStrDict["pos"]
        var curStr = curStrDict["str"]
        if (curStr.includes(CurAppPkgName)) {
            isCurApp = true
            // console.log("    Found [" + curPos + "] current app: " + curStr)
            break
        }
    }

    if (enableNotCallFilter_Binder_execTransact){
        if (isCurApp) {
            shouldCallOrigFunc = false
            // console.log("    shouldCallOrigFunc=" + shouldCallOrigFunc)
        }
    }

    var shouldLogDetail = false
    if (isCurApp) {
        shouldLogDetail = true
        // console.log("shouldLogDetail=" + shouldLogDetail)
    }

    if (shouldLogDetail){
        // var detailedLogStr = execTransactCallStr + "\n" + dataParcelCurAppStr
    }
}

```

```

var detailedLogStr = `${execTransactCallStr}\n${dataParcelCurAppStr}`
// var detailedLogStr = execTransactCallStr + "\n" + dataParcelCurAppStr

console.log(detailedLogStr)
// foundStrLog = `${execTransactCallStr}\n${dataParcelCurAppStr}`

//   // console.log("CurApp Binder.execTransact: code=" + code + ", dat
aObj=" + dataObj + ", replyObj=" + replyObj + ", flags=" + flags + "\n dataParcel: str
DictListStr=" + strDictListStr + ", infoStr=" + dataParcelInfoStr)
//   console.log("CurApp Binder.execTransact: code=" + code + ", dataOb
j=" + dataObj + ", replyObj=" + replyObj + ", flags=" + flags)
//   console.log("  dataParcel: strDictListStr=" + strDictListStr + ",
infoStr=" + dataParcelInfoStr)

//   // logStr = `Binder.execTransact: code=${code}, dataObj=${dataObj}
, replyObj=${replyObj}, flags=${flags}\n  dataParcel: strDictListStr=${strDictListStr},
infoStr=${ dataParcelInfoStr}`
//   // console.log("DetailLogStr=" + logStr)
} else {
//   console.log("Simple Binder.execTransact: code=" + code + ", dataOb
j=" + dataObj + ", flags=" + flags)
//   // logStr = `Simple: Binder.execTransact: code=${code}, dataObj=${
dataObj}, flags=${flags}`
//   // console.log("SimpleLogStr=" + logStr)

// foundStrLog = `Binder.execTransact: code=${code}, dataObj=${dataObj}
, flags=${flags}`
var simpleLog = `Binder.execTransact: code=${code}, dataObj=${dataObj},
flags=${flags}`
// var simpleLog = "Binder.execTransact: code=" + code + ", dataObj=" +
dataObj + ", flags=" + flags
console.log(simpleLog)
}

// console.log(foundStrLog)
}

// PrintStack(ThrowableCls)
} else {
console.log("Binder execTransact: code=" + code + ", 0 size data Parcel, fl
ags=" + flags)
}
// }

if (shouldCallOrigFunc) {
// console.log(logStr)
return this.execTransact(code, dataObj, replyObj, flags)
} else {
// console.log(logStr)
console.log("  Not call Binder.execTransact")
return false
}
}

```

```

var IBinderClassName = "android.os.IBinder"
var IBinderCls = Java.use(IBinderClassName)
console.log("IBinderCls=" + IBinderCls)
// printClassAllMethodsFields(IBinderClassName)
var firstCallTransacton = IBinderCls.FIRST_CALL_TRANSACTION
console.log("firstCallTransacton=" + firstCallTransacton)
var firstCallTransactonValue = firstCallTransacton.value
console.log("firstCallTransactonValue=" + firstCallTransactonValue)

// public abstract boolean transact (int code, Parcel data, Parcel reply, int flags)

// var transactFunc = IBinderCls.transact

var transactFunc = BinderCls.transact
if (transactFunc) {
    transactFunc.implementation = function (code, data, reply, flags) {
        var transactOk = this.transact(code, data, reply, flags)
        if (ValidTransactCodeList.includes(code)) {
            console.log("Binder transact: code=" + code + ",data=" + data + ",reply=" + r
eplay + ",flags=" + flags + " -> transactOk=" + transactOk)
            PrintStack(ThrowableCls)
        }
        return transactOk
    }
}

// protected boolean onTransact (int code, Parcel data, Parcel reply, int flags)
var onTransactFunc = BinderCls.onTransact
if (onTransactFunc) {
    onTransactFunc.implementation = function (code, data, reply, flags) {
        var transactOk = this.onTransact(code, data, reply, flags)
        if (ValidTransactCodeList.includes(code)) {
            console.log("Binder onTransact: code=" + code + ",data=" + data + ",reply=" +
replay + ",flags=" + flags + " -> transactOk=" + transactOk)
            PrintStack(ThrowableCls)
        }
        return transactOk
    }
}

// ----- android.app.ContextImpl
var ContextImplClassName = "android.app.ContextImpl"
var ContextImplCls = Java.use(ContextImplClassName)
console.log("ContextImplCls=" + ContextImplCls)
// printClassAllMethodsFields(ContextImplClassName)

// public boolean bindServiceAsUser(Intent service, ServiceConnection conn, int fla
gs, UserHandle user)
var bindServiceAsUserFunc4 = ContextImplCls.bindServiceAsUser.overload('android.co
ntent.Intent', 'android.content.ServiceConnection', 'int', 'android.os.UserHandle')
if (bindServiceAsUserFunc4) {
    bindServiceAsUserFunc4.implementation = function (service, conn, flags, user) {
        // console.log("ContextImpl.bindServiceAsUser 4: service=" + service + ", conn=
" + conn + ", flags=" + flags + ", user=" + user)
        // PrintStack(ThrowableCls)
        var funcName = "ContextImpl.bindServiceAsUser 4"
}

```

```

        var funcParaDict = {
            "service": service,
            "conn": conn,
            "flags": flags,
            "user": user,
        }
        printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

        return this.bindServiceAsUser(service, conn, flags, user)
    }
}

// public boolean bindServiceAsUser(Intent service, ServiceConnection conn, int flags, Handler handler, UserHandle user)
var bindServiceAsUserFunc5 = ContextImplCls.bindServiceAsUser.overload('android.content.Intent', 'android.content.ServiceConnection', 'int', 'android.os.Handler', 'android.os.UserHandle')
if (bindServiceAsUserFunc5) {
    bindServiceAsUserFunc5.implementation = function (service, conn, flags, handler, user) {
        // console.log("ContextImpl.bindServiceAsUser 5: service=" + service + ", conn=" + conn + ", flags=" + flags + ", handler=" + handler + ", user=" + user)
        // PrintStack(ThrowableCls)
        var funcName = "ContextImpl.bindServiceAsUser 5"
        var funcParaDict = {
            "service": service,
            "conn": conn,
            "flags": flags,
            "handler": handler,
            "user": user,
        }
        printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

        return this.bindServiceAsUser(service, conn, flags, handler, user)
    }
}

// ----- com.android.server.am.ProcessRecord
var ProcessRecordClassName = "com.android.server.am.ProcessRecord"
var ProcessRecordCls = Java.use(ProcessRecordClassName)
console.log("ProcessRecordCls=" + ProcessRecordCls)
// printClassAllMethodsFields(ProcessRecordClassName)

// ----- com.android.server.am.ActiveServices
var ActiveServicesClassName = "com.android.server.am.ActiveServices"
var ActiveServicesCls = Java.use(ActiveServicesClassName)
console.log("ActiveServicesCls=" + ActiveServicesCls)

// private String bringUpServiceLocked(ServiceRecord r, int intentFlags, boolean execInFg, boolean whileRestarting, boolean permissionsReviewRequired, boolean packageFrozen, boolean enqueueOomAdj)
var bringUpServiceLockedFunc = ActiveServicesCls.bringUpServiceLocked
if (bringUpServiceLockedFunc) {
    bringUpServiceLockedFunc.implementation = function (r, intentFlags, execInFg, whileRestarting, permissionsReviewRequired, packageFrozen, enqueueOomAdj) {
}

```

```

        var shouldCallOrigFunc = true
        // console.log("ActiveServices.bringUpServiceLocked: r=" + r + ", intentFlags="
        + intentFlags + ", execInFg=" + execInFg + ", whileRestarting=" + whileRestarting + ",
        permissionsReviewRequired=" + permissionsReviewRequired + ", packageFrozen=" + package
        Frozen + ", enqueueOomAdj=" + enqueueOomAdj)
        // PrintStack(ThrowableCls)

        var funcName = "ActiveServices.bringUpServiceLocked"
        var funcParaDict = {
            "r": r,
            "intentFlags": intentFlags,
            "execInFg": execInFg,
            "whileRestarting": whileRestarting,
            "permissionsReviewRequired": permissionsReviewRequired,
            "packageFrozen": packageFrozen,
            "enqueueOomAdj": enqueueOomAdj,
        }
        printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

        if(enableNotCallFilter_ActiveServices_bringUpServiceLocked){
            var rStr = r.toString()
            if (rStr.includes(CurAppPkgName)){
                shouldCallOrigFunc = false
            }
        }

        if(shouldCallOrigFunc) {
            return this.bringUpServiceLocked(r, intentFlags, execInFg, whileRestarting, p
ermissionsReviewRequired, packageFrozen, enqueueOomAdj)
        } else {
            console.log(" Not call ActiveServices.bringUpServiceLocked")
            return ""
        }
    }
}

// ComponentName startServiceLocked(IApplicationThread caller, Intent service, Stri
ng resolvedType, int callingPid, int callingUid, boolean fgRequired, String callingPack
age, @Nullable String callingFeatureId, final int userId)
var startServiceLockedFunc9 = ActiveServicesCls.startServiceLocked.overload('androi
d.app.IApplicationThread', 'android.content.Intent', 'java.lang.String', 'int', 'int',
'boolean', 'java.lang.String', 'java.lang.String', 'int')
if (startServiceLockedFunc9) {
    startServiceLockedFunc9.implementation = function (caller, service, resolvedType,
callingPid, callingUid, fgRequired, callingPackage, callingFeatureId, userId) {
        var shouldCallOrigFunc = true
        var funcName = "ActiveServices.startServiceLocked 9"
        var funcParaDict = {
            "caller": caller,
            "service": service,
            "resolvedType": resolvedType,
            "callingPid": callingPid,
            "callingUid": callingUid,
            "fgRequired": fgRequired,
            "callingPackage": callingPackage,
            "callingFeatureId": callingFeatureId,
        }
    }
}

```

```

        "userId": userId,
    }
    printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

    if(enableNotCallFilter_ActiveServices_startServiceLocked){
        if (callingPackage.includes(CurAppPkgName)){
            shouldCallOrigFunc = false
        }
    }

    if(shouldCallOrigFunc) {
        return this.startServiceLocked(caller, service, resolvedType, callingPid, callingUid, fgRequired, callingPackage, callingFeatureId, userId)
    } else {
        console.log(" Not call ActiveServices.startServiceLocked 9")
        return null
    }
}
}

// ComponentName startServiceLocked(IApplicationThread caller, Intent service, String resolvedType, int callingPid, int callingUid, boolean fgRequired, String callingPackage, @Nullable String callingFeatureId, final int userId, boolean allowBackgroundActivityStarts, @Nullable IBinder backgroundActivityStartsToken)
var startServiceLockedFunc11 = ActiveServicesCls.startServiceLocked.overload('android.app.IApplicationThread', 'android.content.Intent', 'java.lang.String', 'int', 'int', 'boolean', 'java.lang.String', 'java.lang.String', 'int', 'boolean', 'android.os.IBinder')
if (startServiceLockedFunc11) {
    startServiceLockedFunc11.implementation = function (caller, service, resolvedType, callingPid, callingUid, fgRequired, callingPackage, callingFeatureId, userId, allowBackgroundActivityStarts, backgroundActivityStartsToken) {
        var shouldCallOrigFunc = true
        var funcName = "ActiveServices.startServiceLocked_11"
        var funcParaDict = {
            "caller": caller,
            "service": service,
            "resolvedType": resolvedType,
            "callingPid": callingPid,
            "callingUid": callingUid,
            "fgRequired": fgRequired,
            "callingPackage": callingPackage,
            "callingFeatureId": callingFeatureId,
            "userId": userId,
            "allowBackgroundActivityStarts": allowBackgroundActivityStarts,
            "backgroundActivityStartsToken": backgroundActivityStartsToken,
        }
        printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

        if(enableNotCallFilter_ActiveServices_startServiceLocked){
            if (callingPackage.includes(CurAppPkgName)){
                shouldCallOrigFunc = false
            }
        }

        if(shouldCallOrigFunc) {

```

```

        return this.startServiceLocked(caller, service, resolvedType, callingPid, callingUid, fgRequired, callingPackage, callingFeatureId, userId, allowBackgroundActivityStarts, backgroundActivityStartsToken)
    } else {
        console.log(" Not call ActiveServices.startServiceLocked 11")
        return null
    }
}

// ComponentName startServiceInnerLocked(ServiceMap smap, Intent service, ServiceRecord r, boolean callerFg, boolean addToStarting, int callingUid, boolean wasStartRequested)
var startServiceInnerLockedFunc7 = ActiveServicesCls.startServiceInnerLocked.overload('com.android.server.am.ActiveServices$ServiceMap', 'android.content.Intent', 'com.android.server.am.ServiceRecord', 'boolean', 'boolean', 'int', 'boolean')
if (startServiceInnerLockedFunc7) {
    startServiceInnerLockedFunc7.implementation = function (smap, service, r, callerFg, addToStarting, callingUid, wasStartRequested) {
        var shouldCallOrigFunc = true
        var funcName = "ActiveServices.startServiceInnerLocked 7"
        var funcParaDict = {
            "smap": smap,
            "service": service,
            "r": r,
            "callerFg": callerFg,
            "addToStarting": addToStarting,
            "callingUid": callingUid,
            "wasStartRequested": wasStartRequested,
        }
        printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

        if(enableNotCallFilter_ActiveServices_startServiceInnerLocked){
            var rStr = r.toString()
            if (rStr.includes(CurAppPkgName)){
                shouldCallOrigFunc = false
            }
        }
        if(shouldCallOrigFunc) {
            return this.startServiceInnerLocked(smap, service, r, callerFg, addToStarting, callingUid, wasStartRequested)
        } else {
            console.log(" Not call ActiveServices.startServiceInnerLocked 7")
            return null
        }
    }
}

// private ComponentName startServiceInnerLocked(ServiceRecord r, Intent service, int callingUid, int callingPid, boolean fgRequired, boolean callerFg, boolean allowBackgroundActivityStarts, @Nullable IBinder backgroundActivityStartsToken)
var startServiceInnerLockedFunc8 = ActiveServicesCls.startServiceInnerLocked.overload('com.android.server.am.ServiceRecord', 'android.content.Intent', 'int', 'int', 'boolean', 'boolean', 'boolean', 'android.os.IBinder')
if (startServiceInnerLockedFunc8) {

```

```

startServiceInnerLockedFunc8.implementation = function (r, service, callingUid, c
allingPid, fgRequired, callerFg, allowBackgroundActivityStarts, backgroundActivityStart
sToken) {
    var shouldCallOrigFunc = true
    var funcName = "ActiveServices.startServiceInnerLocked 8"
    var funcParaDict = {
        "r": r,
        "service": service,
        "callingUid": callingUid,
        "callingPid": callingPid,
        "fgRequired": fgRequired,
        "callerFg": callerFg,
        "allowBackgroundActivityStarts": allowBackgroundActivityStarts,
        "backgroundActivityStartsToken": backgroundActivityStartsToken,
    }
    printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

    if(enableNotCallFilter_ActiveServices_startServiceInnerLocked){
        var rStr = r.toString()
        if (rStr.includes(CurAppPkgName)){
            shouldCallOrigFunc = false
        }
    }

    if(shouldCallOrigFunc) {
        return this.startServiceInnerLocked(r, service, callingUid, callingPid, fgReq
uired, callerFg, allowBackgroundActivityStarts, backgroundActivityStartsToken)
    } else {
        console.log(" Not call ActiveServices.startServiceInnerLocked 8")
        return null
    }
}
}

// -----
var ProcessListCls = Java.use("com.android.server.am.ProcessList")
console.log("ProcessListCls=" + ProcessListCls)

//      boolean startProcessLocked(HostingRecord hostingRecord, String entryPoint, P
rocessRecord app, int uid, int[] gids, int runtimeFlags, int zygotePolicyFlags, int mou
ntExternal, String seInfo, String requiredAbi, String instructionSet, String invokeWith
, long startUptime, long startElapsedTme)
var startProcessLockedFunc = ProcessListCls.startProcessLocked.overload('com.androi
d.server.am.HostingRecord', 'java.lang.String', 'com.android.server.am.ProcessRecord',
'int', '[I', 'int', 'int', 'int', 'java.lang.String', 'java.lang.String', 'java.lang.St
ring', 'java.lang.String', 'long', 'long')
console.log("startProcessLockedFunc=" + startProcessLockedFunc)
if (startProcessLockedFunc) {
    startProcessLockedFunc.implementation = function (hostingRecord, entryPoint, app,
uid, gids, runtimeFlags, zygotePolicyFlags, mountExternal, seInfo, requiredAbi, instru
ctionSet, invokeWith, startUptime, startElapsedTme) {
        var shouldCallOrigFunc = true
        console.log("ProcessList.startProcessLocked: hostingRecord=" + hostingRecord +
", entryPoint=" + entryPoint + ", app=" + app + ", uid=" + uid + ", gids=" + gids + ",
runtimeFlags=" + runtimeFlags + ", zygotePolicyFlags=" + zygotePolicyFlags + ", mountEx

```

```

    internal=" + mountExternal + ", seInfo=" + seInfo + ", requiredAbi=" + requiredAbi + ", i
    nstructionSet=" + instructionSet + ", invokeWith=" + invokeWith + ", startUptime=" + st
    artUptime + ", startElapsedTime=" + startElapsedTime)
        // PrintStack(ThrowableCls)

        if(enableNotCallFilter_ProcessList_startProcessLocked){
            var appStr = app.toString()
            if (appStr.includes(CurAppPkgName)){
                shouldCallOrigFunc = false
            }
        }

        if(shouldCallOrigFunc) {
            return this.startProcessLocked(hostingRecord, entryPoint, app, uid, gids, run
            timeFlags, zygotePolicyFlags, mountExternal, seInfo, requiredAbi, instructionSet, invok
            ewith, startUptime, startElapsedTime)
        } else {
            console.log(" Not call ProcessList.startProcessLocked")
            return false
        }
    }
}

// boolean handleProcessStartedLocked(ProcessRecord app, int pid, boolean usingWrap
per, long expectedStartSeq, boolean procAttached) {
    var handleProcessStartedLockedFunc = ProcessListCls.handleProcessStartedLocked.o
    verload('com.android.server.am.ProcessRecord', 'int', 'boolean', 'long', 'boolean')
    console.log("handleProcessStartedLockedFunc=" + handleProcessStartedLockedFunc)
    if (handleProcessStartedLockedFunc) {
        handleProcessStartedLockedFunc.implementation = function (app, pid, usingWrapper,
        expectedStartSeq, procAttached) {
            var shouldCallOrigFunc = true
            console.log("ProcessList.handleProcessStartedLocked: app=" + app + ", pid=" + p
            id + ", usingWrapper=" + usingWrapper + ", expectedStartSeq=" + expectedStartSeq + ", p
            procAttached=" + procAttached)
            // printProcessRecord(app)

            if(enableNotCallFilter_ProcessList_handleProcessStartedLocked){
                var appStr = app.toString()
                if (appStr.includes(CurAppPkgName)){
                    shouldCallOrigFunc = false
                }
            }

            if (shouldCallOrigFunc) {
                PrintStack(ThrowableCls)
                return this.handleProcessStartedLocked(app, pid, usingWrapper, expectedStartS
                eq, procAttached)
            } else {
                console.log(" Not call ProcessList.handleProcessStartedLocked")
                // return false
                return true
            }
        }
    }
}

```

```

}

// ----- com.android.server.am.ContentProviderHelper
var ContentProviderHelperClassName = "com.android.server.am.ContentProviderHelper"
var ContentProviderHelperCls = Java.use(ContentProviderHelperClassName)
console.log("ContentProviderHelperCls=" + ContentProviderHelperCls)

// private ContentProviderHolder getContentProviderImpl(IApplicationThread caller,
String name, IBinder token, int callingUid, String callingPackage, String callingTag, b
oolean stable, int userId)
    var getContentProviderImplFunc = ContentProviderHelperCls.getContentProviderImpl
    if (getContentProviderImplFunc) {
        getContentProviderImplFunc.implementation = function (caller, name, token, callin
gUid, callingPackage, callingTag, stable, userId) {
            var shouldCallOrigFunc = true
            // console.log("ContentProviderHelper.getContentProviderImpl: caller=" + caller
+ ", name=" + name + ", token=" + token + ", callingUid=" + callingUid + ", callingPac
kage=" + callingPackage + ", callingTag=" + callingTag + ", stable=" + stable + ", user
Id=" + userId)
            // PrintStack(ThrowableCls)

            var funcName = "ContentProviderHelper.getContentProviderImpl"
            var funcParaDict = {
                "caller": caller,
                "name": name,
                "token": token,
                "callingUid": callingUid,
                "callingPackage": callingPackage,
                "callingTag": callingTag,
                "stable": stable,
                "userId": userId,
            }
            printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

            if(enableNotCallFilter_ContentProviderHelper_getContentProviderImpl){
                // if(callingPackage.includes(CurAppPkgName)){
                if(name.includes(CurAppPkgName)){
                    shouldCallOrigFunc = false
                }
            }

            if (shouldCallOrigFunc) {
                return this.getContentProviderImpl(caller, name, token, callingUid, callingPa
ckage, callingTag, stable, userId)
            } else {
                console.log(" Not call ContentProviderHelper.getContentProviderImpl")
                return null
            }
        }
    }
}

// ----- android.os.Handler
var HandlerClassName = "android.os.Handler"
var HandlerCls = Java.use(HandlerClassName)
console.log("HandlerCls=" + HandlerCls)

```

```

// public void dispatchMessage(@NonNull Message msg)
var dispatchMessageFunc = HandlerCls.dispatchMessage
if (dispatchMessageFunc) {
    dispatchMessageFunc.implementation = function (msg) {
        var shouldCallOrigFunc = true

        var mgsStr = msg.toString()
        if(mgsStr.includes(CurAppPkgName)){
            // console.log("Handler.dispatchMessage: msg=" + msg)
            // PrintStack(ThrowableCls)
            var funcName = "Handler.dispatchMessage"
            var funcParaDict = {
                "msg": msg,
            }
            printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

            if(enableNotCallFilter_Handler_dispatchMessage){
                // is not : Handler.dispatchMessage: msg={ when=-927ms what=4104 obj=ApplicationExitInfo(timestamp=2023/9/19 16:55 pid=3953 realUid=10249 packageUid=10249 definiin gUid=10249 user=0 process=com.wallpaper.hd.funny reason=12 (DEPENDENCY DIED) subreason=0 (UNKNOWN) status=0 importance=400 pss=33MB rss=132MB description=depends on provider com.google.android.gms/.phenotype.provider.ConfigurationProvider in dying proc com.google.android.gms.persistent (adj -10000) state=empty trace=null target=com.android.server.am.AppExitInfoTracker$KillHandler }
                if( mgsStr.includes("ApplicationExitInfo")){
                    shouldCallOrigFunc = false
                }
            }
        }
    }

    if (shouldCallOrigFunc) {
        return this.dispatchMessage(msg)
    } else {
        console.log(" Not call Handler.dispatchMessage")
        // return null
        return
    }
}

// -----
var BroadcastQueueClassName = "com.android.server.am.BroadcastQueue"
var BroadcastQueueCls = Java.use(BroadcastQueueClassName)
console.log("BroadcastQueueCls=" + BroadcastQueueCls)

// final void processNextBroadcastLocked(boolean fromMsg, boolean skipOomAdj)
var processNextBroadcastLockedFunc = BroadcastQueueCls.processNextBroadcastLocked
if (processNextBroadcastLockedFunc) {
    processNextBroadcastLockedFunc.implementation = function (fromMsg, skipOomAdj) {
        var shouldCallOrigFunc = true
        // console.log("BroadcastQueue.processNextBroadcastLocked: fromMsg=" + fromMsg + ", skipOomAdj=" + skipOomAdj)
        // PrintStack(ThrowableCls)
        var funcName = "BroadcastQueue.processNextBroadcastLocked"
        var funcParaDict = {

```

```

        "fromMsg": fromMsg,
        "skipOomAdj": skipOomAdj,
    }
    printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

    if (shouldCallOrigFunc) {
        return this.processNextBroadcastLocked(fromMsg, skipOomAdj)
    } else {
        console.log(" Not call BroadcastQueue.processNextBroadcastLocked")
        return null
    }
}

// ----- com.android.server.am.ActivityManagerService
var curJavaClassName = "com.android.server.am.ActivityManagerService"
// printClassAllMethodsFields(curJavaClassName)
var ActivityManagerServiceCls = Java.use(curJavaClassName)
console.log("ActivityManagerServiceCls=" + ActivityManagerServiceCls)

// final ProcessRecord startProcessLocked(String processName, ApplicationInfo info,
boolean knownToBeDead, int intentFlags, HostingRecord hostingRecord, int zygotePolicyFlags,
boolean allowWhileBooting, boolean isolated)
var amsStartProcessLockedFunc = ActivityManagerServiceCls.startProcessLocked
if (amsStartProcessLockedFunc) {
    amsStartProcessLockedFunc.implementation = function (processName, info, knownToBeDead,
intentFlags, hostingRecord, zygotePolicyFlags, allowWhileBooting, isolated) {
        var shouldCallOrigFunc = true
        // console.log("AMS.startProcessLocked: processName=" + processName + ", info=" +
info + ", knownToBeDead=" + knownToBeDead + ", intentFlags=" + intentFlags + ", host-
ingRecord=" + hostingRecord + ", zygotePolicyFlags=" + zygotePolicyFlags + ", allowwhi-
leBooting=" + allowWhileBooting + ", isolated=" + isolated)
        // PrintStack(ThrowableCls)
        var funcName = "AMS.startProcessLocked"
        var funcParaDict = {
            "processName": processName,
            "info": info,
            "knownToBeDead": knownToBeDead,
            "intentFlags": intentFlags,
            "hostingRecord": hostingRecord,
            "zygotePolicyFlags": zygotePolicyFlags,
            "allowWhileBooting": allowWhileBooting,
            "isolated": isolated,
        }
        printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

        if(enableNotCallFilter_AMS_startProcessLocked){
            if(processName.includes(CurAppPkgName)){
                shouldCallOrigFunc = false
            }
        }
    }

    if (shouldCallOrigFunc) {
        return this.startProcessLocked(processName, info, knownToBeDead, intentFlags,
hostingRecord, zygotePolicyFlags, allowWhileBooting, isolated)
    }
}

```

```

        } else {
            console.log(" Not call AMS.startProcessLocked")
            return null
        }
    }

    // private boolean attachApplicationLocked(@NonNull IApplicationThread thread, int
    pid, int callingUid, long startSeq)
    var attachApplicationLockedFunc = ActivityManagerServiceCls.attachApplicationLocked
    console.log("attachApplicationLockedFunc=" + attachApplicationLockedFunc)
    if (attachApplicationLockedFunc) {
        attachApplicationLockedFunc.implementation = function (thread, pid, callingUid, s
tartSeq) {
            // console.log("AMS.attachApplicationLocked: thread=" + thread + ", pid=" + pid
            + ", callingUid=" + callingUid + ", startSeq=" + startSeq)
            // PrintStack(ThrowableCls)
            var funcName = "AMS.attachApplicationLocked"
            var funcParaDict = {
                "thread": thread,
                "pid": pid,
                "callingUid": callingUid,
                "startSeq": startSeq,
            }
            printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)
        }
        return this.attachApplicationLocked(thread, pid, callingUid, startSeq)
    }
}

// public ComponentName startService(IApplicationThread caller, Intent service, Str
ing resolvedType, boolean requireForeground, String callingPackage, String callingFeatu
reId, int userId) throws TransactionTooLargeException {
    var startServiceFunc = ActivityManagerServiceCls.startService
    console.log("startServiceFunc=" + startServiceFunc)
    if (startServiceFunc) {
        startServiceFunc.implementation = function (caller, service, resolvedType, requir
eForeground, callingPackage, callingFeatureId, userId) {
            var shouldCallOrigFunc = true
            // console.log("AMS.startService: caller=" + caller + ", service=" + service +
            ", resolvedType=" + resolvedType + ", requireForeground=" + requireForeground + ", call
ingPackage=" + callingPackage + ", callingFeatureId=" + callingFeatureId + ", userId=" +
userId)
            // PrintStack(ThrowableCls)

            var isCurApp = false

            if (service){
                // printIntentInfo(service)
                var serviceStr = service.toString()
                console.log("serviceStr=" + serviceStr)
                // serviceStr=Intent { cmp=com.wallpaper.hd.funny/com.w.thsz.s.Service108 }
                if (serviceStr.includes(CurAppPkgName)) {
                    isCurApp = true
                }
            }
        }
    }
}

```

```

        if(isCurApp){
            var funcName = "AMS.startService"
            var funcParaDict = {
                "caller": caller,
                "service": service,
                "resolvedType": resolvedType,
                "requireForeground": requireForeground,
                "callingPackage": callingPackage,
                "callingFeatureId": callingFeatureId,
                "userId": userId,
            }
            // console.log("will call printFunctionCallAndStack: funcName=" + funcName +
            ", funcParaDict=" + toJsonStr(funcParaDict) + ", ThrowableCls=" + ThrowableCls)
            printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

            var serviceHasFileDescriptors = service.hasFileDescriptors()
            console.log("serviceHasFileDescriptors=" + serviceHasFileDescriptors)

            if(enableNotCallFilter_AMS_startService){
                shouldCallOrigFunc = false
            }
        }

        if (shouldCallOrigFunc) {
            // return this.startService(caller, service, resolvedType, requireForeground,
            callingPackage, callingFeatureId, userId)
            var retComponentName = this.startService(caller, service, resolvedType, requi
            reForeground, callingPackage, callingFeatureId, userId)

            if(isCurApp){
                console.log("retComponentName=" + retComponentName)
            }

            return retComponentName
        } else {
            console.log(" Not call AMS.startService")
            return null
        }
    }

}

// /**
// * Note: hook ActivityManagerService.onTransact always cause Android CRUSH a
// nd REBOOT
// */
// public boolean onTransact(int code, Parcel data, Parcel reply, int flags)
// var amsOnTransactFunc = ActivityManagerServiceCls.onTransact
// console.log("amsOnTransactFunc=" + amsOnTransactFunc)
// if (amsOnTransactFunc) {
//     amsOnTransactFunc.implementation = function (code, dataParcel, replyParcel, fl
// ags) {
//         // if (ValidTransactCodeList.includes(code)) {
//         //     var datParcelStr = tryReadParcelString(dataParcel)
//         //     if (datParcelStr) {
//         //         console.log("AMS onTransact: code=" + code + ", dataParcel=" + dataPa
// rcel + ",datParcelStr=" + datParcelStr + ", replyParcel=" + replyParcel + ", flags=" +
// 
```

```

flags)
    //      //      PrintStack(ThrowableCls)
    //      //
    //      }

    //      // console.log("AMS.onTransact: code=" + code + ", dataParcel=" + dataParcel
+ ", replyParcel=" + replyParcel + ", flags=" + flags)
    //      return this.onTransact(code, dataParcel, replyParcel, flags)
    //  }
    // }

    // // Note: will cause crash & reboot, so temp not hook
    // // public boolean startInstrumentation(ComponentName className, String profileFi
le, int flags, Bundle arguments, IInstrumentationWatcher watcher, IUiAutomationConnecti
on uiAutomationConnection, int userId, String abiOverride)
    // var startInstrumentationFunc = ActivityManagerServiceCls.startInstrumentation
    // console.log("startInstrumentationFunc=" + startInstrumentationFunc)
    // if (startInstrumentationFunc) {
    //     // startInstrumentationFunc.implementation = function (className, profileFile,
flags, arguments, watcher, uiAutomationConnection, userId, abiOverride) {
    //         startInstrumentationFunc.implementation = function (className, profileFile, fl
ags, arguments1, watcher, uiAutomationConnection, userId, abiOverride) {
    //             console.log("typeof flags=" + (typeof flags) + ",typeof userId=" + (typeof u
serId))
    //             // var Integer = Java.use("java.lang.Integer")
    //             // var flagsInt = Integer.valueOf(flags)
    //             // var userIdInt = Integer.valueOf(userId)
    //             // console.log("typeof flagsInt=" + (typeof flagsInt) + ",typeof userIdInt="
+ (typeof userIdInt))

    //             console.log("className=" + className + ", profileFile=" + profileFile + ", f
lags=" + flags + ", arguments1=" + arguments1 + ", watcher=" + watcher + ", uiAutomatio
nConnection=" + uiAutomationConnection + ", userId=" + userId + ", abiOverride=" + abiO
verride)
    //             PrintStack(ThrowableCls)
    //             // return this.startInstrumentation(className, profileFile, flags, arguments
, watcher, uiAutomationConnection, userId, abiOverride)
    //             return this.startInstrumentation(className, profileFile, flags, arguments1,
watcher, uiAutomationConnection, userId, abiOverride)
    //             // return this.startInstrumentation(className, profileFile, flagsInt, argume
nts1, watcher, uiAutomationConnection, userIdInt, abiOverride)
    //         }
    //     }

    // // public final void com.android.server.am.ActivityManagerService.finishForceSto
pPackageLocked(java.lang.String,int)
    // // private void finishForceStopPackageLocked(final String packageName, int uid) {

    // var finishForceStopPackageLockedFunc = ActivityManagerServiceCls.finishForceStop
PackageLocked
    // console.log("finishForceStopPackageLockedFunc=" + finishForceStopPackageLockedFu
nc)
    // if (finishForceStopPackageLockedFunc) {
    //     finishForceStopPackageLockedFunc.implementation = function (packageName, uid) {

    //         PrintStack(ThrowableCls)

```

```

        //      return this.finishForceStopPackageLocked(packageName, uid)
        //
    }

    // public void com.android.server.am.ActivityManagerService.forceStopPackage(java.l
ang.String,int)
    // public void forceStopPackage(final String packageName, int userId) {
var amsForceStopPackageFunc = ActivityManagerServiceCls.forceStopPackage
console.log("amsForceStopPackageFunc=" + amsForceStopPackageFunc)
if (amsForceStopPackageFunc) {
    amsForceStopPackageFunc.implementation = function (packageName, userId) {
        PrintStack(ThrowableCls)
        return this.forceStopPackage(packageName, userId)
    }
}

// public final void com.android.server.am.ActivityManagerService.forceStopPackageL
ocked(java.lang.String,int,java.lang.String)
// private void forceStopPackageLocked(final String packageName, int uid, String re
ason) {
    var forceStopPackageLockedFunc3 = ActivityManagerServiceCls.forceStopPackageLocked.
overload('java.lang.String', 'int', 'java.lang.String')
    console.log("forceStopPackageLockedFunc3=" + forceStopPackageLockedFunc3)
    if (forceStopPackageLockedFunc3) {
        forceStopPackageLockedFunc3.implementation = function (packageName, uid, reason) {

            PrintStack(ThrowableCls)
            return this.forceStopPackageLocked(packageName, uid, reason)
        }
    }
}

// public final boolean com.android.server.am.ActivityManagerService.forceStopPacka
geLocked(java.lang.String,int,boolean,boolean,boolean,boolean,boolean,int,java.lang.Str
ing)
// final boolean forceStopPackageLocked(String packageName, int appId, boolean call
erWillRestart, boolean purgeCache, boolean doit, boolean evenPersistent, boolean unin
stalling, int userId, String reason) {
    var forceStopPackageLockedFunc9 = ActivityManagerServiceCls.forceStopPackageLocked.
overload('java.lang.String', 'int', 'boolean', 'boolean', 'boolean', 'boolean', 'boolea
n', 'int', 'java.lang.String')
    console.log("forceStopPackageLockedFunc9=" + forceStopPackageLockedFunc9)
    if (forceStopPackageLockedFunc9) {
        forceStopPackageLockedFunc9.implementation = function (packageName, appId, caller
WillRestart, purgeCache, doit, evenPersistent, uninstalling, userId, reason) {
            PrintStack(ThrowableCls)
            return this.forceStopPackageLocked(packageName, appId, callerWillRestart, purg
eCache, doit, evenPersistent, uninstalling, userId, reason)
        }
    }
}

// -----
var ActivityManagerCls = Java.use("android.app.ActivityManager")
console.log("ActivityManagerCls=" + ActivityManagerCls)

// public void android.app.ActivityManager.forceStopPackage(java.lang.String)

```

```

// public void forceStopPackage(String packageName) {
var amForceStopPackageFunc = ActivityManagerCls.forceStopPackage
console.log("amForceStopPackageFunc=" + amForceStopPackageFunc)
if (amForceStopPackageFunc) {
    amForceStopPackageFunc.implementation = function (packageName) {
        PrintStack(ThrowableCls)
        return this.forceStopPackage(packageName)
    }
}

// // ----- com.android.server.wm.ActivityStarter

// var ActivityStarterCls = Java.use("com.android.server.wm.ActivityStarter")
// console.log("ActivityStarterCls=" + ActivityStarterCls)

// var executeRequestFunc = ActivityStarterCls.executeRequest
// // var executeRequestFunc = ActivityStarterCls._executeRequest
// console.log("executeRequestFunc=" + executeRequestFunc)
// if (executeRequestFunc) {
//     executeRequestFunc.implementation = function (request) {
//         // 打印当前调用堆栈信息
//         let newThrowable = Throwable.$new()
//         console.log("newThrowable=" + newThrowable)
//         let stackStr = curLog.getStackTraceString(newThrowable)
//         console.log("stackStr=" + stackStr)
//         return this.executeRequest(request)
//     }
// }

// // public void android.app.ActivityManager.forceStopPackageAsUser(java.lang.String,int)
// // public void forceStopPackageAsUser(String packageName, int userId) {
// var forceStopPackageAsUserFunc = ActivityManagerCls.forceStopPackageAsUser
// console.log("forceStopPackageAsUserFunc=" + forceStopPackageAsUserFunc)
// if (forceStopPackageAsUserFunc) {
//     forceStopPackageAsUserFunc.implementation = function (packageName, userId) {
//         PrintStack(ThrowableCls)
//         return this.forceStopPackageAsUser(packageName, userId)
//     }
// }

// // ----- com.android.server.pm.Settings
// var SettingsCls = Java.use("com.android.server.pm.Settings")
// console.log("SettingsCls=" + SettingsCls)

// /* static @NonNull PackageSetting createNewSetting(
//     String pkgName,
//     PackageSetting originalPkg,
//     PackageSetting disabledPkg,
//     String realPkgName,
//     SharedUserSetting sharedUser,
//     File codePath,
//     String legacyNativeLibraryPath,
//     String primaryCpuAbi,
//     String secondaryCpuAbi,

```

```
//         long versionCode,
//         int pkgFlags,
//         int pkgPrivateFlags,
//         UserHandle installUser,
//         boolean allowInstall,
//         boolean instantApp,
//         boolean virtualPreload,
//         UserManagerService userManager,
//         String[] usesSdkLibraries,
//         long[] usesSdkLibrariesVersions,
//         String[] usesStaticLibraries,
//         long[] usesStaticLibrariesVersions,
//         Set<String> mimeGroupNames,
//         @NonNull UUID domainSetId
//     ) {
// */

// var createNewSettingFunc = SettingsCls.createNewSetting
// console.log("createNewSettingFunc=" + createNewSettingFunc)
// if (createNewSettingFunc) {
//     createNewSettingFunc.implementation = function (pkgName, originalPkg, disabled
// Pkg, realPkgName, sharedUser, codePath, legacyNativeLibraryPath, primaryCpuAbi, seconda
// ryCpuAbi, versionCode, pkgFlags, pkgPrivateFlags, installUser, allowInstall, instantApp
// , virtualPreload, userManager, usesSdkLibraries, usesStaticLibraries, usesStaticLibrari
// esVersions, mimeGroupNames, domainSetId) {
//     PrintStack(ThrowableCls)
//     return this.createNewSetting(pkgName, originalPkg, disabledPkg, realPkgName,
//     sharedUser, codePath, legacyNativeLibraryPath, primaryCpuAbi, secondaryCpuAbi, version
//     Code, pkgFlags, pkgPrivateFlags, installUser, allowInstall, instantApp, virtualPreload,
//     userManager, usesSdkLibraries, usesStaticLibraries, usesStaticLibrariesVersions, mimeG
//     roupNames, domainSetId)
// }
// }

// )
// }

setImmediate(hookForceStop)
```

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## frida-trace

此处介绍 frida-trace 的实际使用案例，供参考。

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# iOS的ObjC

此处介绍用 `frida-trace` 去调试 iOS 的 ObjC 的类和函数的实际案例，供参考。

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2023-06-24 23:24:56

## akd中Apple账号验证过程

此处去记录 frida-trace 追踪 akd 中Apple账号验证过程：

- 设备：
  - iOS 15.0 的 iPhone8
    - palera1n 的rootful普通越狱

去追踪调试：

- 设置Preferences中，点击登录Apple账号
  - 输入账号，点击下一步

的Apple账号验证过程中，函数调用的过程的结果

## frida-trace命令

```
frida-trace -U -n akd -O akdObjcMethods.txt
```

### Option文件 akdObjcMethods.txt 内容

```
-m "*[AA* *]"  
-m "*[AK* *]"  
-m "*[AS* *]"  
-m "*[NSXPC* *]"  
-M "-[NSXPC*coder *]"  
-M "-[NSXPConnection replacementObjectForEncoder:object:]"
```

## 输出

## 截图

完整的截图如下：

This block contains three vertically stacked screenshots of Frida-Trace Python interface, showing memory dump traces for three different processes. Each screenshot displays a timeline of events with timestamp, file offset, memory address, and Frida script code.

The first screenshot shows a trace for process 209, starting at offset 410 GB. It includes code for NSXPSStore sqlCore, NSXPConnection, and NSXPClient, along with logic for connection management and authentication.

The second screenshot shows a trace for process 569, starting at offset 1 GB. It includes code for NSXPSStore sqlCore, NSXPConnection, and NSXPClient, along with logic for connection management and authentication.

The third screenshot shows a trace for process 499, starting at offset 499 MB. It includes code for NSXPSStore sqlCore, NSXPConnection, and NSXPClient, along with logic for connection management and authentication.

```
83889 ms /*-[NSURLConnection delegate] */
83889 ms | -[AKDaemonConnectionManager listener:0x126907508 shouldAcceptNewConnection:0x126a10468]
83889 ms | | -[AKClient initWithConnection:0x126a10460]
83889 ms | -[AKDaemonConnectionManager shouldAllowClient:0x126a0c800 logging:0x16b3a5998]
83889 ms | | -[AKClient _boolValueForEntitlement:0x10503a2b0]
83889 ms | | | -INSXPConnection valueForEntitlement:0x10503a2b0
83889 ms | | | -INSXPConnection auditToken:0x10503a2b0
83889 ms /* TID 0x2767 */
83889 ms | | | -[AKAppleIDAuthenticationService_performInteractiveAuthWithContext:0x126a0bf00 completion:0x16b31a4d0]
83889 ms | | | -[AKAppleIDAuthenticationService_refreshMultiMetadataWithContext:0x126a0bf00 completion:0x16b31a3e8]
83889 ms | | | -[AKAppleIDAuthenticationService_refreshLocalAccountAndUpdateContext:0x126a0bf00 completion:0x16b31a4ac8]
83889 ms | | | -[AKAppleIDAuthenticationService_updateContext:0x126a0bf00 completion:0x16b31a4d0]
83889 ms | | | -[AKAppleIDAuthenticationContext _allowSDSID:0x10503a2b0]
83889 ms | | | -[AKAppleIDAuthenticationContext SDSID]
83889 ms | | | -[AKAppleIDAuthenticationContext altSDSID]
83889 ms | | | -[AKAppleIDAuthenticationContext sharedController]
83889 ms | | | -[AKAppleIDAuthenticationContext needsNewAppleID]
83889 ms | | | -[AKAppleIDAuthenticationContext needsNewChildAccount]
83889 ms | | | -[AKAppleIDAuthenticationContext needsCredentialRecovery]
83889 ms | | | -[AKAppleIDAuthenticationContext needsEmailAddressOrPasswordChange]
83889 ms | | | -[AKAppleIDAuthenticationContext username]
83889 ms | | | -[AKAppleIDAuthenticationContext authenticationType]
83889 ms | | | -[AKAppleIDAuthenticationContext needsTwoFactorAuthentication:0x0]
83889 ms | | | -[AKAppleIDAuthenticationContext altSDSID]
83889 ms | | | -[AKAppleIDAuthenticationContext SDSID]
83889 ms | | | -[AKAppleIDAuthenticationContext username]
83889 ms | | +[AKAccountManager sharedInstance]
83889 ms | | | -[AKAccountManager accountWithAppleID:0x126a053b0]
83889 ms | | | -[AKAccountManager sharedPasswordIfAvailable]
83889 ms | | | -[AKAccountManager authKitAccountWithAppleID:0x126a053b0]
83889 ms | | | -[AKAccountManager authKitAccountType]
83889 ms | | | -INSXPConnection initWithMachineServiceName:0x10effff108 options:0x0
83889 ms | | | -[UDCTracedPQConnection init]
83889 ms | | | | -[NSXConnection init]
83891 ms /* TID 0x2ee7 */
83891 ms | | | -[AKClient description]
83891 ms | | | -[AKClient name]
83891 ms | | | -INSXPConnection processIdentifier]
83892 ms /* TID 0x2767 */
83892 ms | | | -INSXPConnection setRemoteObjectInterface:0x125e0f350]
83892 ms /* TID 0x2ee7 */
83892 ms | | | -INSXPConnectionInterface interfaceWithProtocol:0x1f9747d58]
83892 ms | | -[AKAnissetteProvdingService initWithClient:0x126a0c890]
83892 ms /* TID 0x2767 */
83892 ms | | | -INSXPConnection setExportedInterface:0x126b10170]
83892 ms | | -[AKAttestationSigner sharedSigner]
83892 ms | | -INSXPConnection setExportedObject:0x126a212f0]
83892 ms /* TID 0x2767 */
83892 ms | | | -INSXPConnection setProtocol:0x1f9747d58]
83892 ms | | +[AKAnissetteProvdingServiceInterface xPCInterface]
83892 ms | | -INSXPConnection setExportedInterface:0x125d16640]
83892 ms /* TID 0x2767 */
83892 ms | | | -INSXPConnection setExportedInterface:0x126b10170]
83892 ms | | -INSXPConnection setExportedObject:0x126b159f0]
83892 ms /* TID 0x2ee7 */
83892 ms | | +[AKAnissetteProvdingClientInterface xPCInterface]
83892 ms | | -INSXPConnection setRemoteObjectInterface:0x125d16a50]
83892 ms /* TID 0x2767 */
83892 ms | | | -INSXPConnection setInterruptHandler:0x16b31a200]
83892 ms | | -INSXPConnection setInvalidationHandler:0x16b31a200]
83892 ms | | -INSXPConnection resume]
83892 ms /* TID 0x2ee7 */
83892 ms | | | -INSXPConnection setInterruptHandler:0x16b31a200]
83892 ms | | -INSXPConnection setInvalidationHandler:0x16b31a200]
83892 ms | | -INSXPConnection resume]
83893 ms /*-[NSXPConnection _decodeAndInvokeMessageWithEvent:0x126212128 flags:0x1]
83893 ms | | -INSXPConnection init]
83893 ms | | | -INSXPConnection _selectorIsAllowed:0x19d37a17a isReply:0x0 methodSignature:0x16b3a60d0 allowedClasses:0x16b3a60d0]
83893 ms | | | -INSXPConnection dealoc]
83893 ms | | -INSXPConnection _methodSignatureForReplyByBlockSelector:0x19d37a17a]
83893 ms | | -[AKAnissetteProvdingService fetchAnissetteObjectAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b3a62a0]
83893 ms | | | -[AKClient hasInternalPrivateEntitlementAccess]
83893 ms /* TID 0x2767 */
83893 ms | | | -[AKClient hasInternalPrivateEntitlementAccess]
83894 ms /* TID 0x2ee7 */
83894 ms | | | -INSXPConnection synchronousRemoteObjectProxyWithErrorHandler:0x16b31a410]
83894 ms | | | -INSXPConnection _remoteObjectInterfaceClass]
83894 ms | | | -[NSXInterface _customSublass]
83894 ms /* TID 0x2ee7 */
83894 ms | | | -[AKClient hasInternalAccess]
83894 ms | | | -[AKClient hasHomeAccess]
83894 ms | | | -[AKClient _boolValueForEntitlement:0x10503a290]
83894 ms /* TID 0x2767 */
83894 ms | | | -INSXPInterface _methodSignatureForRemoteSelector:0x19cef453]
83894 ms | | | -INSXPConnection _sendInvocation:0x16b31a3c0 arguments:0x0 count:0x0 methodSignature:0x9d85aaef9fffdaff selector:0x19cef453 withProxy:0x16b6b17cd0]
83894 ms /* TID 0x2ee7 */
83894 ms | | | -INSXPInterface _interfaceForArgument:0x0 selector:0x19cef453 reply:0x0]
83894 ms | | | -INSXPConnection valueForEntitlement:0x10503a290]
83894 ms /* TID 0x2767 */
83894 ms | | | -INSXPConnection auditToken]
83895 ms /* TID 0x2ee7 */
83895 ms | | | -[NSXPCCoder init]
83895 ms | | | -[NSXPCCoder dealoc]
83895 ms /* TID 0x2767 */
83895 ms | | | -INSXPInterface _hasProxiesInReplyToBlockArgumentsOfSelector:0x19cef453]
83897 ms /* TID 0x2ee7 */
83897 ms | | | -[AKClient _boolValueForEntitlement:0x10503a270]
83897 ms | | | -INSXPConnection valueForEntitlement:0x10503a270]
83897 ms | | | -INSXPConnection connection auditToken]
83897 ms | | | -[AKAnissetteProvdingService fetchAnissetteObjectAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b3a62a0]
83897 ms | | | -[AKAnissetteProvdingService_helperServiceForDevice:0x0]
83897 ms | | | -[AKAnissetteProvdingService_nativeAnissetteService]
83897 ms | | | -[ANativeAnissetteService initWithClient:0x126a0c990]
83897 ms | | +[ANativeAnissetteService fetchAnissetteDataAndProvisionIfNecessary:0x1 withCompletion:0x16b3a62a0]
83897 ms | | -[AKURIBag bagForAltSID:0x0]
83897 ms | | | -[AKURIBag sharedBag]
83897 ms | | -[AKURIBag lastKnownIDMEnvironment]
83897 ms | | -[AKConfiguration lastKnownIDMConfiguration]
83897 ms | | -[AKConfiguration lastKnownIDESEnvironment]
83897 ms | | -[AKConfiguration configurationValueForKey:0x1ea6f0118]
83898 ms | | +[ANativeAnissetteService activeAnissetteDataWithIDMEnvironment:0x16b3a62a0]
83898 ms | | -[ANativeAnissetteService _unsafe_anissetteDataWithIDMEnvironment:0x16b3a62a0]
83898 ms | | -[AKURIBag proxy getIDMRoutingInfo:0x1268a0d38 forSID:0x16b3a62a0]
83898 ms /* TID 0x2767 */
83898 ms | | | -INSXPConnection _decodeAndInvokeReplayBlockWithEvent:0x126a21230 sequence:0x1 replyInfo:0x126b05970]
83898 ms | | | -INSXPConnection dealoc]
83898 ms | | | -INSXPConnection _selectorIsAllowed:0x19cef453 isReply:0x1 methodSignature:0x16b319260 allowedClasses:0x16b319268]
83898 ms | | | -[AKAccountManager shouldUpdateAuthForAccount:0x126a02e20]
83898 ms | | | -[AKAppleIDAuthenticationService _refreshMultiModeForContext:0x126a0bf00 completion:0x16b31a498]
83898 ms | | | -[AKAppleIDAuthenticationService _refreshMultiModeWithContext:0x126a0bf00 completion:0x16b31a498]
83898 ms | | | -[AKClient hasInternalPrivateEntitlementAccess]
83898 ms | | | -[AKClient hasInternalEntitlementAccess]
83898 ms | | | -[AKClient hasHomeAccess]
83898 ms | | | -[AKClient hasUserAccess]
83898 ms | | | -INSXPConnection valueForEntitlement:0x10503a290]
83898 ms | | | -INSXPConnection auditToken]
83898 ms | | | -INSXPConnection valueForEntitlement:0x10503a270]
83898 ms /* TID 0x2ee7 */
83898 ms | | | -[ANativeAnissetteService _unsafe_anissetteDataForSID:0xfffffffffffff0000000000000000 withError:0x16b3a68a8]
83898 ms /* TID 0x2767 */
83898 ms | | | +[AKURIBagInfoController sharedController]
```







```
6398 ms  root@192.168.2.13 (ssh)  31  - (-zsh)  32  2.0 kB↑  4/3, 10:01 frida-trace (python)
6398 ms +-[AKDevice currentDevice]
6398 ms |-[AKDevice localUserUUID]
6398 ms |-[AKConfiguration sharedConfiguration]
6398 ms |-[AKConfiguration shouldAcceptNewConnection]
6398 ms |-[AKConnection validateChallengeWithChallengeForKey:0x12e94ab0]
6398 ms |-[AKAppleSession pairedDeviceAnisetteController]
6398 ms -[AKAnisetteData .cxx_destruct]
6398 ms -[NSXPConnection deallocate]
6398 ms -[NSXPConnection invalidateHandler]
6398 ms -[NSXPConnection additionalIvalidectionHandler]
6397 ms -[NSXPConnection setInvalidationHandler:0x0]
6397 ms -[NSXPConnection setInterruptionHandler:0x0]
6397 ms -[NSXPConnection setExportedObject:0x0]
6397 ms |-[AKDevice currentDevice .cxx_destruct]
6397 ms |-[AKNativeAnisetteService .cxx_destruct]
6397 ms |-[AKClient .cxx_destruct]
6398 ms -[NSXPConnection dealoc]
6398 ms -[NSXPConnection dealloc]
6398 ms -[NSXPConnection init]
6398 ms -[NSXPClient delegate]
6398 ms -[NSXPClient delegate]
6398 ms -[AKDaemonConnectionManager listener:0x126907500 shouldAcceptNewConnection:0x12e533170]
6398 ms |-[AKClient initWithConnection:0x12e333170]
6398 ms |-[AKDaemonConnectionManager shouldAllowClient:0x12e532900 logging:0x16b31a598]
6398 ms |-[AKClient hasWriteAccess]
6398 ms |-[AKClient _boolValueForEntitlement:0x10503a2b0]
6398 ms |-[NSXPConnection valueForEntitlement:0x10503a2b0]
6398 ms |-[NSXPConnection auditToken]
6397 ms |-[AKClient description]
6397 ms |-[AKClient name]
6397 ms |-[NSXPConnection processIdentifier]
6397 ms |-[NSXPConnection processIdentifier]
6397 ms -[AKAnisetteProvisioningService initWithClient:0x125e2b000]
6397 ms |-[AKABsIntheSigner sharedSigner]
6397 ms |-[AKATestestationSigner sharedSigner]
6397 ms -[NSXPConnection setRemoteObject:XPCInterface]
6397 ms +[AKAnisetteProvisioningService setRemoteObject:XPCInterface]
6397 ms -[NSXPConnection setExportedInterface:0x125d16640]
6397 ms |-[AKAnisetteProvisioningClientInterface .cxx_destruct]
6397 ms -[NSXPConnection dealoc]
6397 ms -[NSXPConnection decodeAndInvokeMessageWithEvent:0x1268085c0 flags:0x21]
6397 ms |-[NSXPConnection init]
6397 ms -[NSXPConnection selectorIsAllowed:0x19d37a17a isReply:0x0 methodSignature:0x16b31a0d0 allowedClasses:0x16b31a0d0]
6397 ms |-[NSXPConnection dealoc]
6397 ms -[NSXPConnection methodSignatureForRepWithLockForSelector:0x19d37a17a]
6397 ms |-[AKAnisetteProvisioningService fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b31a2e0]
6397 ms |-[AKClient hasInternalPrivateAccess]
6397 ms |-[AKClient hasInternalPrivateAccess]
6397 ms |-[AKClient hasInternalAccess]
6397 ms |-[AKClient hasInternalAccess]
6397 ms |-[AKClient hasOwnerAccess]
6397 ms |-[AKClient _boolValueForEntitlement:0x10503a290]
6397 ms |-[NSXPConnection valueForEntitlement:0x10503a290]
6397 ms |-[NSXPConnection auditToken]
6397 ms |-[AKClient hasValueForEntitlement:0x10503a270]
6397 ms |-[NSXPConnection valueForEntitlement:0x10503a270]
6397 ms |-[NSXPConnection auditToken]
6397 ms |-[AKAnisetteProvisioningService fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b31a2e0]
6397 ms |-[AKClient hasInternalPrivateAccess]
6397 ms |-[AKClient hasInternalPrivateAccess]
6397 ms |-[AKClient hasInternalAccess]
6397 ms |-[AKClient hasInternalAccess]
6397 ms |-[AKClient hasOwnerAccess]
6397 ms |-[AKClient _boolValueForEntitlement:0x10503a290]
6397 ms |-[NSXPConnection valueForEntitlement:0x10503a290]
6397 ms |-[NSXPConnection auditToken]
6397 ms |-[AKClient hasValueForEntitlement:0x10503a270]
6397 ms |-[NSXPConnection valueForEntitlement:0x10503a270]
6397 ms |-[NSXPConnection auditToken]
6397 ms |-[AKAnisetteProvisioningService fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b31a2e0]
6397 ms |-[AKAnisetteProvisioningService helperServiceForServiceID:0x0]
6397 ms |-[AKAnisetteProvisioningService _nativeAnisetteService]
6397 ms |-[AKNativeAnisetteService initWithClient:0x12e52b0900]
6397 ms |-[AKNativeAnisetteService fetchAnisetteDataAndProvisionIfNecessary:0x1 withCompletion:0x16b31a2e0]
6397 ms |-[AKNativeAnisetteService lastKnownNativeAnisetteOSID]
6397 ms +[AKNativeAnisetteService lastKnownNativeAnisetteOSID]
6397 ms |-[AKURLBag bagForAltOSID:0x0]
6397 ms |-[AKURLBag sharedBag]
6397 ms |-[AKConfiguration sharedConfiguration]
6397 ms |-[AKConfiguration sharedConfiguration]
6397 ms |-[AKConfiguration lastKnownIDSEnvironment]
6397 ms |-[AKConfiguration configurationValueForKey:0x12e532900]
6397 ms |-[AKConfiguration configurationValueForKey:0x12e532900]
6397 ms |-[AKAnisetteService _unsafe_anisetteChatWithRouterInfoForOutboundID:0xffffffffffff withError:0x16b31a8a8]
6397 ms |+[AKADIPProxy getIMSRoutingInfo:0x10b031a88 forOSID:0xffffffffffff withError:0x16b31a8a8]
6397 ms |-[AKNativeAnisetteService _unsafe_anisetteDataForOSID:0xffffffffffff withError:0x16b31a8a8]
6397 ms |-[AKADIPProxy requestOSID:0xffffffffffff forOutID:0x16b31a7e8 outMD5Size:0x16b31a7d outUTPSIZE:0x16b31a7d]
6397 ms |-[AKADIPProxy dispose:0x125e2b2840]
6397 ms |-[AKAnisetteData setMachineID:0x125e2b2f20]
6397 ms |-[AKAnisetteData setOneTimePassword:0x125e2c2070]
6397 ms |-[AKAnisetteData setRoutingInfoForOSID:0x3050900]
6397 ms |-[NSXPConnection interfaceForArgument:0x8f5e800]
6397 ms |-[NSXPConnection dealoc]
6397 ms |-[NSXPConnection encodeWithCoder:0x127819800]
6397 ms |-[NSXPConnection dealoc]
6397 ms |-[NSXPConnection dealoc]
6397 ms |-[AKSession .cxx_destruct]
6397 ms |-[AKURLSession URLSession:0x125e1f80 didReceiveChallenge:0x12e94ab10 completionHandler:0x16b31a698]
6397 ms |-[AKCertificatePinball isValidCertificateTrust:0x126949858 forHostname:0x12694a840]
6397 ms -[NSXPConnection invalidationHandler]
6397 ms -[NSXPConnection invalidateHandler]
6397 ms -[NSXPConnection setInvalidationHandler:0x0]
6397 ms -[NSXPConnection setInterruptionHandler:0x0]
6397 ms -[NSXPConnection setExportedObject:0x0]
6397 ms |-[AKDevice currentDevice .cxx_destruct]
6397 ms |-[AKNativeAnisetteService .cxx_destruct]
6397 ms |-[AKClient .cxx_destruct]
6397 ms /* TID 0x3e3 */
6398 ms -[NSXPClient service:(void *)]
6398 ms -[NSXPClient connection:(id)]
6398 ms -[NSXPClient delegate]
6398 ms -[NSXPClient delegate]
6398 ms -[AKDaemonConnectionManager listener:0x126907500 shouldAcceptNewConnection:0x12e5a04b30]
6398 ms |-[AKClient initWithConnection:0x12e3a04b30]
6398 ms |-[AKDaemonConnectionManager shouldAllowClient:0x126a10290 logging:0x16d432598]
6398 ms |-[AKClient hasWriteAccess]
6398 ms |-[AKClient _boolValueForEntitlement:0x10503a2b0]
6398 ms |-[NSXPConnection valueForEntitlement:0x10503a2b0]
6398 ms |-[NSXPConnection auditToken]
6398 ms |-[AKClient description]
6398 ms |-[AKClient name]
6398 ms |-[NSXPConnection processIdentifier]
6398 ms |-[NSXPConnection processIdentifier]
6398 ms -[AKAnisetteProvisioningService initWithClient:0x126a10290]
6398 ms |-[AKABsIntheSigner sharedSigner]
6398 ms |-[AKATestestationSigner sharedSigner]
6398 ms -[NSXPConnection setExportedObject:0x12a0a5f60]
6398 ms |-[NSXPConnection setSupportedInterface:0x125d16640]
6398 ms +[AKAnisetteProvisioningClientInterface XPCInterface]
6398 ms -[NSXPConnection setRemoteObjectInterface:0x125d16640]
6398 ms -[NSXPConnection resume]
6398 ms -[NSXPConnection decodeAndInvokeMessageWithEvent:0x126a0c780 flags:0x21]
6398 ms |-[NSXPConnection init]
6398 ms -[NSXPConnection selectorIsAllowed:0x19d37a17a isReply:0x0 methodSignature:0x16b432b00 allowedClasses:0x16b432b00]
```

frida-trace (python)

root@192.168.2.13 (esh) X1 - (-zsh) X2 1.0 kB↑ 4/13, 10:02

```

84691 ms | -[NSXPCCoder dealloc]
84691 ms | -[NSXPCCInterface _methodSignatureForReplyBlockOfSelector:0x19d37a17a]
84691 ms | -[AKAnisetteProvisioningService fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b4322a0]
84691 ms | | -[AKClient hasInternalPrivateEntitlementAccess]
84691 ms | | | -[AKClient hasInternalAccess]
84691 ms | | | -[AKClient hasOwnerAccess]
84691 ms | | | -[AKClient _bogValueForEntitlement:0x10503a290]
84691 ms | | | -[NSXPConnection valueForEntitlement:0x10503a290]
84691 ms | | | -[NSXPConnection auditToken]
84691 ms /* TID 0x2767 */
84691 ms +-[NSXPConnection dealloc]
84692 ms | +-[AKClient _bogValueForEntitlement:0x10503a270]
84692 ms | | -[NSXPConnection valueForEntitlement:0x10503a270]
84692 ms | | -[NSXPConnection auditToken]
84692 ms | -[AKAnisetteProvisioningService fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b4322a0]
84692 ms | | -[AKAnisetteProvisioningService _fetchEntitlementService:0x10503a290]
84692 ms | | | -[AKAnisetteProvisioningService _nativeAnisetteService]
84692 ms | | | -[ANativeAnisetteService initWithClient:0x126a10290]
84692 ms | | | -[ANativeAnisetteService fetchAnisetteDataAndProvisionIfNecessary:0x1 withCompletion:0x16b4322a0]
84692 ms | | +-[ANativeAnisetteService _fetchAnisetteDataAndProvisionIfNecessary:0x10503a290]
84692 ms | | | +-[AKURLBag bagForAllIDS:0x0]
84692 ms | | | | +-[AKURLBag sharedBag]
84692 ms | | | -[AKURLBag lastKnownIDMSEnvironment]
84692 ms | | | | +-[AKConfiguration lastKnownIDMSEnvironment]
84692 ms | | | | | -[AKConfiguration configurationValueForKey:0x1ea6f9118]
84692 ms | | | +-[ANativeAnisetteService activeAnisetteOSDWithEnv:0x0]
84692 ms | | | | +-[AKAnisetteService _getMachineID:0x10503a280]
84692 ms | | | | | -[AKAnisetteService _getMachineIDForOSD:0x10503a280]
84693 ms | | | | -[AKAnisetteService _unsafe_anisetteDataForOSD:0x10503a280]
84693 ms | | | | | -[AKAnisetteProxy requestOTPForOSD:0xfffffffffffffe withError:0x16b4328a0]
84693 ms | | | | | -[AKAnisetteProxy dispose:0x126a0700]
84693 ms | | | | | -[AKAnisetteProxy setMachineID:0x126a0700]
84693 ms | | | | | -[AKAnisetteData setOneTimePassword:0x126a0830]
84693 ms | | | | | -[AKAnisetteData setRoutingInfo:0x3050500]
84693 ms | | | +-[NSXPConnection _interfaceForArgument:0x0 selector:0x19d37a17a reply:0x1]
84693 ms | | | -[NSXPConnection encodeWithCoder:0x125d87560]
84693 ms | | | -[NSXPConnection dealoc]
84693 ms | | | -[NSXPConnection _destruct]
84693 ms | | | -[AKURLDataTask _destruct]
84693 ms | | | -[AKURLSession _destruct]
84693 ms | | | -[AKURLSession _task:0x125e16f00 dataTask:0x126a23790 didReceiveData:0x125d86ce0]
84693 ms | | | -[AKURLDataTask _receivedData]
84693 ms | | | -[AKURLDataTask _setReceivedData:0x125d87560]
84693 ms /* TID 0x2767 */
84693 ms -[AKURLSession _task:0x125e16f00 task:0x126a23790 didCompleteWithError:0x0]
84693 ms | -[AKURLSession _unsafe_completeTask:0x126b043e0 withError:0x0]
84693 ms | | -[AKURLDataTask underlyingTask]
84693 ms | | | -[AKURLDataTask _completeWith:0x0]
84693 ms | | | -[AKURLDataTask _setCancelledOrCompleted:0x1]
84693 ms | | | -[AKURLDataTask _receivedData]
84693 ms | +-[AKURLDataTask _description]
84693 ms | -[AKGrandmaRequestProvider validateResponseData:0x125d87560 error:0x16b31ade8]
84693 ms | | -[AKRequestProvider _validateResponseData:0x125d87560 error:0x16b31ade8]
84693 ms | | -[AKURLRequestProviderImpl _validateDataExists:0x125d87560]
84693 ms | | -[AKURLRequestProviderImpl _validateResponseBodyFormat]
84693 ms | | -[AKGrandmaRequestProvider _expectedResponseType]
84693 ms | | -[AKURLRequestProviderImpl _validateError:0x16b3aaef9ffd98d withKey:0x1ea6eeb58]
84693 ms | +-[AKAppleIDAuthenticationContext _useError]
84693 ms /* TID 0x2767 */
84693 ms -[AKAppleIDAuthenticationService _correlateContext:0x126a0b00 withAuthMode:0x1]
84693 ms

```

frida-trace (python)

root@192.168.2.13 (esh) X1 - (-zsh) X2 6.1 kB↑ 4/13, 10:02

```

84787 ms | -[AKAppleIDAuthenticationService _correlateContext:0x126a0b00 withAuthMode:0x1]
84787 ms | | -[AKAppleIDAuthenticationContext _setAuthenticationMode:0x1]
84787 ms | | | -[AKAppleIDAuthenticationContext _authenticationType]
84787 ms | | | -[AKAppleIDAuthenticationContext _username]
84787 ms | | | -[AKAppleIDAuthenticationContext _authenticationType]
84787 ms | | | -[AKAuthenticationUtlization presentBasicLogInUIForContext:0x126a0b00 client:0x1269481d0 completion:0x16b31ab40]
84787 ms | | | +-[AKAppleIDAuthenticationContext _firstTimeLogin]
84787 ms | | | | -[AKAppleIDAuthenticationContext _isFirstTimeLogin]
84787 ms | | | | +-[AKAppleIDAuthenticationContext _shouldCapturePrompBugForContext:0x126a0b00]
84787 ms | | | | | -[AKAppleIDAuthenticationContext _capabilityForUITDisplay]
84787 ms | | | | | -[AKAppleIDAuthenticationContext _performUIOutOfProcess]
84787 ms | | | | | -[AKAppleIDAuthenticationContext _performUIOutOfProcess]
84787 ms | | | +-[AKAppleIDAuthenticationContext _cxx_destruct]
84787 ms | | | -[AKAppleIDSession _cxx_destruct]
84787 ms | | | -[AKClient proxyWithErrorHandler:0x16b4beda0]
84787 ms | | | -[NSXPConnection remoteObjectProxyWithErrorHandler:0x16b4beda0]
84787 ms | | | -[NSXPConnection _methodSignatureForRemoteSelector:0x19d20bd8]
84787 ms | | | -[NSXPInterface _interfaceForSubclass]
84787 ms | | | -[NSXPConnection _sendSelector:0x19d20bd8 withProxy:0x1268a8e88 arg1:0x126a0b00 arg2:0x16b4bed70]
84787 ms | | | -[NSXPInterface _methodSignatureForRemoteSelector:0x19d20bd8]
84787 ms | | | -[NSXPConnection _openInvocation:0x16b4bedc count:0x2 methodSignature:0x9d85aaef9ffd885f selector:0x19d20bd8 withProxy:0x1268a8e88]
84787 ms | | | -[NSXPInterface _interfaceForArguments:0x0 selector:0x19d20bd8 reply:0x0]
84787 ms | | | -[NSXPConnection init]
84787 ms /* TID 0x2767 */
84787 ms -[AKAnisetteProvisioningController _cxx_destruct]
84787 ms | +-[NSXPConnection _invalidationHandler]
84787 ms | | -[NSXPConnection _additionalInvalidationHandler]
84787 ms | | -[NSXPConnection _setInvalidationHandler:0x0]
84787 ms | | -[NSXPConnection _cxx_destruct]
84787 ms | +-[NSXPConnection _invalidationHandler]
84787 ms | | -[NSXPConnection _setInterruptionHandler:0x0]
84787 ms | | -[NSXPConnection _cxx_destruct]
84787 ms | +-[NSXPConnection _additionalInvalidationHandler]
84787 ms | | -[NSXPConnection _cxx_destruct]
84787 ms | | -[NSXPConnection _destruct]
84787 ms | | -[NSXPConnection _setValidationHandler:0x0]
84787 ms | | -[NSXPConnection _setInterruptionHandler:0x0]
84787 ms | | -[NSXPConnection _setExportedObject:0x0]
84787 ms | | -[NSXPConnection _hasProxiesInReplyBlockArgumentsOfSelector:0x19d20bd8]
84787 ms | +-[NSXPInterface _cxx_destruct]
84787 ms | -[AKServiceControllerImpl _cxx_destruct]
84787 ms | | -[AKServiceRequestProviderImpl _cxx_destruct]
84787 ms | | -[NSXPConnection _cxx_destruct]
84787 ms | | -[NSXPConnection _destruct]
84787 ms | | -[NSXPConnection _setExportedObject:0x0]
84787 ms | | -[NSXPConnection _setValidationHandler:0x0]
84787 ms | | -[NSXPConnection _setInterruptionHandler:0x0]
84787 ms | | -[NSXPConnection _setExportedObject:0x0]
84787 ms | | -[NSXPConnection _cxx_destruct]
84787 ms | +-[NSXPConnection dealoc]
84787 ms /* TID 0x2767 */
84787 ms -[NSXPConnection _cxx_destruct]
84787 ms | -[AKAnisetteProvisioningController _cxx_destruct]
84787 ms | | -[AKAnisetteProvisioningController _setValidationHandler]
84787 ms | | -[AKAnisetteProvisioningController _setInterruptionHandler]
84787 ms | | -[AKAnisetteProvisioningController _setExportedObject]
84787 ms | | -[AKAnisetteProvisioningController _cxx_destruct]
84787 ms | +-[NSXPConnection dealoc]

```

## log 日志

```
...
-[NSXPCStore dealloc]: Loaded handler at "/Users/crifan/dev/dev_root/iosReverse/AppleStore/AuthKit_akd/dynamicDebug/frida/scripts/__handlers__/NSXPCStore/dealloc.js"
-[NSXPCStore setIdentifier:]: Loaded handler at "/Users/crifan/dev/dev_root/iosReverse/AppleStore/AuthKit_akd/dynamicDebug/frida/scripts/__handlers__/NSXPCStore/setIdentifier_.js"
Started tracing 6145 functions. Press Ctrl+C to stop.
```

```
/* TID 0x2ee3 */
44503 ms -[NSXPCListener serviceName]
44503 ms -[NSXPCConnection init]
44503 ms -[NSXPCListener delegate]
44503 ms -[NSXPCListener delegate]
44503 ms -[AKDaemonConnectionManager listener:0x126906200 shouldAcceptNewConnection:0
x126b0da50]
44503 ms | -[AKClient initWithConnection:0x126b0da50]
44503 ms | -[AKDaemonConnectionManager shouldAllowClient:0x126b05640 logging:0x16b
31a598]
44503 ms | | -[AKClient hasWriteAccess]
44503 ms | | | -[AKClient _boolValueForEntitlement:0x10503a2b0]
44503 ms | | | | -[NSXPCConnection valueForEntitlement:0x10503a2b0]
44503 ms | | | | | -[NSXPCConnection auditToken]
44505 ms | | -[AKClient description]
44505 ms | | | -[AKClient name]
44505 ms | | | | -[NSXPCConnection processIdentifier]
44505 ms | | | | -[NSXPCConnection processIdentifier]
44505 ms | | -[AKAppleIDAuthenticationService initWithClient:0x126b05640]
44505 ms | | | -[AKAppleIDAuthenticationService initWithProxy:0x126b16890]
44505 ms | | | | -[AKAppleIDAuthenticationService init]
44505 ms | | | | | +[AKAccountManager sharedInstance]
```

```

44505 ms | | | | | +[AKAccountManager isAccountsFrameworkAvailable]
44505 ms | | | | | +[AKAuthenticationUILiaison sharedInstance]
44505 ms | | | | | +[AKAuthenticationTrafficController sharedInstance]
44505 ms | | | | | -[AKAuthenticationUILiaison surrogateManager]
44505 ms | | | | | -[AKAuthenticationTrafficController setSurrogateManager:
0x125d15810]
44506 ms | | | | | -[NSXPCCConnection setExportedObject:0x126b0fa00]
44506 ms | | | | | +[AKAppleIDAuthenticationDaemonInterface XPCInterface]
44506 ms | | | | | -[NSXPCCConnection setExportedInterface:0x1268141a0]
44506 ms | | | | | +[AKAppleIDAuthenticationClientInterface XPCInterface]
44506 ms | | | | | -[NSXPCCConnection setRemoteObjectInterface:0x1269121f0]
44506 ms | | | | | -[NSXPCCConnection resume]
44506 ms | | | | | -[NSXPCCConnection _decodeAndInvokeMessageWithEvent:0x126b0fa40 flags:0x21]
44506 ms | | | | | | -[NSXPCCoder init]
44506 ms | | | | | | -[NSXPCInterface _selectorIsAllowed:0x19dd2ca94 isReply:0x0 methodSignature:0x16b31a0f0 allowedClasses:0x16b31a0f8]
44506 ms | | | | | | -[NSXPCCoder dealloc]
44506 ms | | | | | | -[NSXPCInterface _methodSignatureForReplyBlockOfSelector:0x19dd2ca94]
44506 ms | | | | | | -[AKAppleIDAuthenticationService fetchURLBagFromCache:0x0 altDSID:0x0 completion:0x16b31a2c0]
44506 ms | | | | | | | +[AKURLBagService sharedBagService]
44506 ms | | | | | | | -[AKURLBagService urlBagFromCache:0x0 altDSID:0x0 error:0x16b31a0f8]
44506 ms | | | | | | | -[AKURLBagService _cachedURLBagForAltDSID:0x0]
44506 ms | | | | | | | -[NSXPCInterface _interfaceForArgument:0x0 ofSelector:0x19dd2ca94 reply:0x1]
44506 ms | | | | | | | -[NSXPCCoder init]
44507 ms | | | | | | | -[NSXPCCoder dealloc]
44508 ms | | | | | | | -[NSXPCCConnection invalidationHandler]
44508 ms | | | | | | | -[NSXPCCConnection _additionalInvalidationHandler]
44508 ms | | | | | | | -[NSXPCCConnection setInvalidationHandler:0x0]
44508 ms | | | | | | | -[NSXPCCConnection setInterruptionHandler:0x0]
44508 ms | | | | | | | -[NSXPCCConnection setExportedObject:0x0]
44508 ms | | | | | | | | -[AKAppleIDAuthenticationService .cxx_destruct]
44508 ms | | | | | | | | -[AKClient .cxx_destruct]
44508 ms | | | | | | | -[NSXPCCConnection dealloc]
/* TID 0x2ee7 */
83869 ms | | | | | -[NSXPCListener serviceName]
83870 ms | | | | | -[NSXPCCConnection init]
83870 ms | | | | | -[NSXPCListener delegate]
83870 ms | | | | | -[NSXPCListener delegate]
83870 ms | | | | | -[AKDaemonConnectionManager listener:0x126906200 shouldAcceptNewConnection:0x126947dd0]
83871 ms | | | | | | -[AKClient initWithConnection:0x126947dd0]
83871 ms | | | | | | -[AKDaemonConnectionManager shouldAllowClient:0x1269481d0 logging:0x16b3a6598]
83871 ms | | | | | | | -[AKClient hasWriteAccess]
83871 ms | | | | | | | | -[AKClient _boolValueForEntitlement:0x10503a2b0]
83871 ms | | | | | | | | | -[NSXPCCConnection valueForEntitlement:0x10503a2b0]
83871 ms | | | | | | | | | -[NSXPCCConnection auditToken]
83874 ms | | | | | | | -[AKClient description]
83874 ms | | | | | | | | -[AKClient name]
83874 ms | | | | | | | | | -[NSXPCCConnection processIdentifier]
83874 ms | | | | | | | | | -[NSXPCCConnection processIdentifier]
83874 ms | | | | | | | -[AKAppleIDAuthenticationService initWithClient:0x1269481d0]
83874 ms | | | | | | | | -[AKAppleIDAuthenticationService initWithProxy:0x125d87ea0]

```

```

83875 ms | | | -[AKAppleIDAuthenticationService init]
83875 ms | | | | +[AKAccountManager sharedInstance]
83875 ms | | | | | +[AKAccountManager isAccountsFrameworkAvailable]
83875 ms | | | | | +[AKAuthenticationUILiaison sharedInstance]
83875 ms | | | | | +[AKAuthenticationTrafficController sharedInstance]
83875 ms | | | | | | -[AKAuthenticationUILiaison surrogateManager]
83875 ms | | | | | | -[AKAuthenticationTrafficController setSurrogateManager:
0x125d15810]
83876 ms | | | -[NSXPConnection setExportedObject:0x125d88d50]
83876 ms | | | +[AKAppleIDAuthenticationDaemonInterface XPCInterface]
83876 ms | | | -[NSXPConnection setExportedInterface:0x1268141a0]
83876 ms | | | +[AKAppleIDAuthenticationClientInterface XPCInterface]
83876 ms | | | -[NSXPConnection setRemoteObjectInterface:0x1269121f0]
83877 ms | | | | -[NSXPConnection resume]
83877 ms | | | -[NSXPConnection _decodeAndInvokeMessageWithEvent:0x125d7e8f0 flags:0x21]
83878 ms | | | | -[NSXPCCoder init]
83878 ms | | | | -[NSXPCInterface _selectorIsAllowed:0x19d1122fb isReply:0x0 methodSignature:0x16b3a5780 allowedClasses:0x16b3a5788]
83878 ms | | | | +[AKAppleIDAuthenticationContext supportsSecureCoding]
83878 ms | | | | -[AKAppleIDAuthenticationContext initWithCoder:0x128808e00]
83879 ms | | | | -[NSXPCCoder dealloc]
83879 ms | | | | -[NSXPCInterface _methodSignatureForReplyBlockOfSelector:0x19d1122fb]
83879 ms | | | | -[AKAppleIDAuthenticationService authenticateWithContext:0x126a0bf00 completion:0x16b3a5950]
83879 ms | | | | | -[AKAppleIDAuthenticationContext _capabilityForUIDisplay]
83879 ms | | | | | -[AKAppleIDAuthenticationContext serviceType]
83879 ms | | | | | -[AKClient isPermittedForInteractiveAuthOnLimitedContext]
83879 ms | | | | | | -[AKClient _permittedProcessNamesForInteractiveAuthOnLimitedContext]
83879 ms | | | | | -[AKClient name]
83880 ms | | | | | -[AKAppleIDAuthenticationContext isContextEligibleForSilentAuthCoe
rcion]
83880 ms | | | | | | -[AKAppleIDAuthenticationContext _proxiedAppName]
83880 ms | | | | | | -[AKAppleIDAuthenticationContext _capabilityForUIDisplay]
83880 ms | | | | | | -[AKAppleIDAuthenticationContext username]
83880 ms | | | | | | -[AKAppleIDAuthenticationContext _password]
83881 ms | | | | | | -[AKAuthenticationTrafficController beginAuthenticationWithContext:
0x126a0bf00 client:0x1269481d0 clearanceHandler:0x16b3a57a8]
/* TID 0x2767 */
83882 ms | | | -[AKClient bundleID]
83882 ms | | | | -[NSXPConnection processIdentifier]
83883 ms | | | | -[NSXPConnection processIdentifier]
83883 ms | | | -[AKAuthenticationTrafficController _addCachedPasswordInContext:0x126a0bf00]
83883 ms | | | | -[AKAppleIDAuthenticationContext serviceType]
83883 ms | | | | -[AKAppleIDAuthenticationContext isContextEligibleForSilentAuth]
83883 ms | | | | | -[AKAppleIDAuthenticationContext authenticationType]
83883 ms | | | | | -[AKAppleIDAuthenticationContext shouldPromptForPasswordOnly]
83884 ms | | | | | -[AKAppleIDAuthenticationContext isEphemeral]
83884 ms | | | | | | -[AKAppleIDAuthenticationContext isUsernameEditable]
83884 ms | | | | -[AKClient bundleID]
83884 ms | | | | -[AKTrafficClearanceRequest setClearanceHandler:0x126a19640]
83884 ms | | | | -[AKTrafficClearanceRequest setContext:0x126a0bf00]
83884 ms | | | | -[AKTrafficClearanceRequest setClientBundleID:0x1f7d89e60]
83884 ms | | | | -[AKAuthenticationTrafficController _shouldClearRequest:0x126a0be60 withCli
ent:0x1269481d0]
83884 ms | | | | | -[AKTrafficClearanceRequest context]

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83884 ms | -[AKAppleIDAuthenticationContext _capabilityForUIDisplay]
83884 ms | -[AKAppleIDAuthenticationContext _capabilityForUIDisplay]
83884 ms | -[AKAuthenticationTrafficController surrogateManager]
83884 ms | -[AKAuthenticationSurrogateManager isSurrogateAuthInProgressForClient:0
x1269481d0]
83884 ms |     | -[AKAuthenticationSurrogateManager _fetchSurrogateForClient:0x1269
481d0]
83885 ms |     |     | -[AKAuthenticationSurrogateManager inProgressSurrogates]
83885 ms | -[AKAppleIDAuthenticationContext authenticationType]
83885 ms | -[AKAuthenticationTrafficController _hasActiveAppAuths]
83885 ms |     | -[AKAuthenticationTrafficController _hasValuesInMap:0x126816150]
83885 ms | -[AKAuthenticationTrafficController _hasActiveDaemonAuths]
83885 ms |     | -[AKAuthenticationTrafficController _hasValuesInMap:0x126816170]
83885 ms -[AKAuthenticationTrafficController _tq_invokeTrafficRequest:0x126a0be60]
83885 ms | -[AKTrafficClearenceRequest clientBundleID]
83885 ms | -[AKTrafficClearenceRequest context]
83885 ms | -[AKTrafficClearenceRequest context]
83885 ms | -[AKAppleIDAuthenticationContext _capabilityForUIDisplay]
83886 ms -[AKTrafficClearenceRequest clearanceHandler]
83886 ms -[AKAppleIDAuthenticationContext _capabilityForUIDisplay]
83886 ms -[AKAppleIDAuthenticationService _authenticateWithContext:0x126a0bf00 comple
tion:0x16b31ad40]
83886 ms | -[AKAppleIDAuthenticationContext needsRepair]
83886 ms | -[AKAppleIDAuthenticationContext needsCredentialRecovery]
83886 ms | -[AKAppleIDAuthenticationContext needsNewAppleID]
83886 ms | -[AKAppleIDAuthenticationContext needsNewChildAccount]
83886 ms | -[AKAppleIDAuthenticationContext needsPasswordChange]
83886 ms | -[AKAppleIDAuthenticationContext needsSecurityUpgradeUI]
83886 ms | -[AKAppleIDAuthenticationService _performAuthenticationWithContext:0x12
6a0bf00 completion:0x16b31ad40]
83886 ms |     | -[AKAppleIDAuthenticationService _isInteractiveAuthRequiredForCont
ext:0x126a0bf00]
83886 ms |     |     | -[AKAppleIDAuthenticationContext authenticationType]
83887 ms |     |     | -[AKAppleIDAuthenticationService _attemptBiometricOrPasscodeAuthWi
thContext:0x126a0bf00 completion:0x16b31ad40]
83887 ms |     |     | -[AKAppleIDAuthenticationContext isContextEligibleForBiometri
cOrPasscodeAuth]
83887 ms |     |     |     | -[AKAppleIDAuthenticationContext _capabilityForUIDisplay
]
83887 ms |     |     |     | -[AKAppleIDAuthenticationContext _isVerifyCredentialReas
onEligibleForBiometricOrPasscodeAuth]
83887 ms |     |     |     | -[AKAppleIDAuthenticationContext verifyCredentialRe
ason]
83887 ms |     |     |     | +[AKConfiguration sharedConfiguration]
83887 ms |     |     |     | -[AKConfiguration shouldAllowExperimentalMode]
83887 ms |     |     |     |     | -[AKConfiguration configurationValueForKey:0x1ea6ef
fb8]
83887 ms |     |     |     | -[AKAppleIDAuthenticationService _attemptInteractiveAuthWithC
ontext:0x126a0bf00 completion:0x16b31ad40]
83887 ms |     |     |     | -[AKAppleIDAuthenticationContext username]
83887 ms |     |     |     | -[AKAppleIDAuthenticationContext _password]
83887 ms |     |     |     | -[AKAppleIDAuthenticationContext _shouldSkipInitialReach
abilityCheck]
/* TID 0x2ee7 */
83889 ms -[NSXPCLListener serviceName]
83889 ms -[NSXPCCConnection init]

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83889 ms -[NSXPCListener delegate]
83889 ms -[NSXPCListener delegate]
83889 ms -[AKDaemonConnectionManager listener:0x126907500 shouldAcceptNewConnection:0
x126a10460]
83889 ms | -[AKClient initWithConnection:0x126a10460]
83889 ms | -[AKDaemonConnectionManager shouldAllowClient:0x126a0c890 logging:0x16b
3a6598]
83889 ms | | -[AKClient hasWriteAccess]
83889 ms | | | -[AKClient _boolValueForEntitlement:0x10503a2b0]
83889 ms | | | | -[NSXPCCConnection valueForEntitlement:0x10503a2b0]
83889 ms | | | | | -[NSXPCCConnection auditToken]
/* TID 0x2767 */
83889 ms | | | | | | -[AKAppleIDAuthenticationService _performInteractiveAuth
WithContext:0x126a0bf00 completion:0x16b31ad40]
83890 ms | | | | | | | -[AKAppleIDAuthenticationService refreshAuthMetadat
aWithContext:0x126a0bf00 completion:0x16b31ab38]
83890 ms | | | | | | | | -[AKAppleIDAuthenticationService _refreshLocal
AccountAndUpdateContext:0x126a0bf00 completion:0x16b31aac8]
83890 ms | | | | | | | | | -[AKAppleIDAuthenticationContext _shouldR
efreshAccountAndUpdateContext]
83890 ms | | | | | | | | | | -[AKAppleIDAuthenticationService _updateA
ltDSIDAndUsername:0x126a0bf00]
83890 ms | | | | | | | | | | | -[AKAppleIDAuthenticationContext alt
DSID]
83890 ms | | | | | | | | | | | -[AKAppleIDAuthenticationContext DS
I]
83890 ms | | | | | | | | | | | | -[AKAppleIDAuthenticationContext altDSID]
83890 ms | | | | | | | | | | | | -[AKAppleIDAuthenticationService _refresh
AuthModeIfNecessaryForContext:0x126a0bf00 completion:0x16b31a998]
83890 ms | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext nee
dsNewAppleID]
83890 ms | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext nee
dsNewChildAccount]
83890 ms | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext nee
dsCredentialRecovery]
83890 ms | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext nee
dsPasswordChange]
83890 ms | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext use
rname]
83890 ms | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext use
rname]
83890 ms | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext aut
henticationType]
83891 ms | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext aut
hKitAccount:0x0]
83891 ms | | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContex
t altDSID]
83891 ms | | | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContex
t DSID]
83891 ms | | | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContex
t username]
83891 ms | | | | | | | | | | | | | | | | | | | | | +[AKAccountManager sharedInstan
ce]
83891 ms | | | | | | | | | | | | | | | | | | | | | | +[AKAccountManager isAccou
ntsFrameworkAvailable]
83891 ms | | | | | | | | | | | | | | | | | | | | | | | -[AKAccountManager authKitAccou

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ntWithAppleID:0x126a053b0]
83891 ms | | | | | | | | | | | | -[AKAccountManager authKit
AccountType]
83891 ms | | | | | | | | | | | | -[NSXPConnection initWith
MachServiceName:0x1e8ff16b8 options:0x0]
83891 ms | | | | | | | | | | | | -[ACTrackedXPCCConnect
ion init]
83891 ms | | | | | | | | | | | | -[NSXPConnection
n init]
    /* TID 0x2ee7 */
83891 ms | | | -[AKClient description]
83891 ms | | | | -[AKClient name]
83891 ms | | | | | -[NSXPConnection processIdentifier]
83892 ms | | | | | -[NSXPConnection processIdentifier]
    /* TID 0x2767 */
83892 ms | | | | | | | | | | | | -[NSXPConnection setRemot
eObjectInterface:0x125e0f350]
83892 ms | | | | | | | | | | | | +[NSPCInterface interface
WithProtocol:0x1f9747d58]
    /* TID 0x2ee7 */
83892 ms | | | -[AKAnisetteProvisioningService initWithClient:0x126a0c890]
83892 ms | | | | +[AKAbsintheSigner sharedSigner]
    /* TID 0x2767 */
83892 ms | | | | | | | | | | | | -[NSPCInterface init
]
    /* TID 0x2ee7 */
83892 ms | | | | +[AKAttestationSigner sharedSigner]
83892 ms | | | -[NSXPConnection setExportedObject:0x126a212f0]
    /* TID 0x2767 */
83892 ms | | | | | | | | | | | | -[NSPCInterface setP
rotocol:0x1f9747d58]
    /* TID 0x2ee7 */
83892 ms | | | +[AKAnisetteProvisioningDaemonInterface XPCInterface]
83892 ms | | | -[NSXPConnection setExportedInterface:0x125d16640]
    /* TID 0x2767 */
83892 ms | | | | | | | | | | | | -[NSXPConnection setExp
ortedInterface:0x126b10170]
83892 ms | | | | | | | | | | | | -[NSXPConnection setExp
ortedObject:0x126b159f0]
    /* TID 0x2ee7 */
83892 ms | | | +[AKAnisetteProvisioningClientInterface XPCInterface]
83892 ms | | | -[NSXPConnection setRemoteObjectInterface:0x125d16a50]
83892 ms | | | -[NSXPConnection resume]
    /* TID 0x2767 */
83892 ms | | | | | | | | | | | | -[NSXPConnection setInter
ruptionHandler:0x16b31a2d8]
83892 ms | | | | | | | | | | | | -[NSXPConnection setInval
idationHandler:0x16b31a2b0]
83892 ms | | | | | | | | | | | | -[NSXPConnection resume]
    /* TID 0x2ee7 */
83893 ms -[NSXPConnection _decodeAndInvokeMessageWithEvent:0x126a21320 flags:0x21]
83893 ms | | -[NSPCCoder init]
83893 ms | | -[NSPCInterface _selectorIsAllowed:0x19d37a17a isReply:0x0 methodSigna
ture:0x16b3a60d0 allowedClasses:0x16b3a60d8]
83893 ms | | -[NSPCCoder dealloc]
83893 ms | | -[NSPCInterface _methodSignatureForReplyBlockOfSelector:0x19d37a17a]
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83893 ms      | -[AKAnisetteProvisioningService fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b3a62a0]
83893 ms      |     | -[AKClient hasInternalPrivateAccess]
83894 ms      |     |     | -[AKClient hasInternalPrivateEntitlementAccess]
/* TID 0x2767 */
83894 ms      |     |     |     |     |     |     |     |     | -[NSXPCCConnection synchronousRemoteObjectProxyWithErrorHandler:0x16b31a410]
83894 ms      |     |     |     |     |     |     |     |     | -[NSXPCCConnection _remoteObjectInterfaceClass]
83894 ms      |     |     |     |     |     |     |     |     |     | -[NSXPCInterface _customSubclass]
/* TID 0x2ee7 */
83894 ms      |     |     |     | -[AKClient hasInternalAccess]
83894 ms      |     |     |     | -[AKClient hasOwnerAccess]
83894 ms      |     |     |     |     | -[AKClient _boolValueForEntitlement:0x10503a290]
/* TID 0x2767 */
83894 ms      |     |     |     |     |     |     |     |     |     | -[NSXPCInterface _methodSignatureForRemoteSelector:0x19cef453]
83894 ms      |     |     |     |     |     |     |     |     |     | -[NSXPCCConnection _sendInvocation:0x16b31a130 orArguments:0x0 count:0x0 methodSignature:0x9d85aa9dd9ffdaaff selectOr:0x19cef453 withProxy:0x126b17cd0]
83894 ms      |     |     |     |     |     |     |     |     |     | -[NSXPCInterface _interfaceForArgument:0x0 ofSelector:0x19cef453 reply:0x0]
/* TID 0x2ee7 */
83894 ms      |     |     |     |     |     | -[NSXPCCConnection valueForEntitlement:0x10503a290]
83894 ms      |     |     |     |     |     | -[NSXPCCConnection auditToken]
/* TID 0x2767 */
83894 ms      |     |     |     |     |     |     |     |     |     |     | -[NSXPCCoder init]
83895 ms      |     |     |     |     |     |     |     |     |     |     | -[NSXPCCoder dealloc]
83895 ms      |     |     |     |     |     |     |     |     |     |     | -[NSXPCInterface _hasProxiesInReplyBlockArgumentsOfSelector:0x19cef453]
/* TID 0x2ee7 */
83897 ms      |     |     |     |     | -[AKClient _boolValueForEntitlement:0x10503a270]
83897 ms      |     |     |     |     | -[NSXPCCConnection valueForEntitlement:0x10503a270]
83897 ms      |     |     |     |     | -[NSXPCCConnection auditToken]
83897 ms      |     |     | -[AKAnisetteProvisioningService _fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b3a62a0]
83897 ms      |     |     |     | -[AKAnisetteProvisioningService _helperServiceForDevice:0x0]
83897 ms      |     |     |     | -[AKAnisetteProvisioningService _nativeAnisetteService]
83897 ms      |     |     |     | -[AKNativeAnisetteService initWithClient:0x126a0c890]
83897 ms      |     |     |     | -[AKNativeAnisetteService fetchAnisetteDataAndProvisionIfNecessary:0x1 withCompletion:0x16b3a62a0]
83897 ms      |     |     |     | +[AKNativeAnisetteService lastKnownActiveAnisetteDSID]
83897 ms      |     |     |     | +[AKURLBag bagForAltDSID:0x0]
83897 ms      |     |     |     | +[AKURLBag sharedBag]
83897 ms      |     |     | -[AKURLBag lastKnownIDMSEnvironment]
83897 ms      |     |     |     | +[AKConfiguration sharedConfiguration]
83897 ms      |     |     |     | -[AKConfiguration lastKnownIDMSEnvironment]
83897 ms      |     |     |     |     | -[AKConfiguration configurationValueForKey:0x1ea6f0118]
83898 ms      |     |     |     | +[AKNativeAnisetteService activeAnisetteDSIDWithEnvironment:0x0]
83898 ms      |     |     | -[AKNativeAnisetteService _unsafe_anisetteDataWithRoutingInfoForDSID:0xffffffffffff withError:0x16b3a68a8]

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| | | | -[NSXPConnection synchronousRemoteObjectProxyWithErrorHandler:0x16b
31a428]
83905 ms | | | | -[NSXPConnection _remoteObjectInterfaceClass]
83905 ms | | | | -[NSXPCInterface _customSubclass]
83905 ms | | | | -[NSXPConnection _sendSelector:0x19e667b96 withProxy:0x126a23430 ar
g1:0x1ea6ece38 arg2:0x16b31a3f8]
83906 ms | | | | -[NSXPCInterface _methodSignatureForRemoteSelector:0x19e667b96]
83906 ms | | | | -[NSXPConnection _sendInvocation:0x0 orArguments:0x16b31a368 c
ount:0x2 methodSignature:0x9d85aa9dd9ff885f selector:0x19e667b96 withProxy:0x126a23430]
83906 ms | | | | -[NSXPCInterface _interfaceForArgument:0x0 ofSelector:0x19
e667b96 reply:0x0]
83906 ms | | | | -[NSXPCCoder init]
83906 ms | | | | -[NSXPCCoder dealloc]
83906 ms | | | | -[NSXPCInterface _hasProxiesInReplyBlockArgumentsOfSelecto
r:0x19e667b96]
83907 ms | | | | -[NSXPConnection _decodeAndInvokeReplyBlockWithEvent:0x12
6a237f0 sequence:0x9 replyInfo:0x126a234e0]
83907 ms | | | | -[NSXPCCoder init]
83907 ms | | | | -[NSXPCInterface _selectorIsAllowed:0x19e667b96 isRep
ly:0x1 methodSignature:0x16b3196b0 allowedClasses:0x16b3196b8]
83907 ms | | | | -[NSXPCCoder dealloc]
83907 ms | | +[AKFollowUpServerPayloadFormatter pendingAuthKitFollowUpPayload:0x1f7b37
500]
83907 ms | | -[AKAppleIDServerResourceLoadDelegate setFollowupItems:0x126a23710]
83907 ms | | -[AKAppleIDAuthenticationContext proxiedDeviceAnisetteData]
83907 ms | | -[AKAppleIDServerResourceLoadDelegate setProxiedDeviceAnisetteData:0x0]
83907 ms | | -[AKAppleIDAuthenticationContext proxiedDevice]
83907 ms | | -[AKAppleIDServerResourceLoadDelegate setProxiedDevice:0x0]
83907 ms | | -[AKClient name]
83907 ms | | -[AKAppleIDServerResourceLoadDelegate setClientAppName:0x1f7d8ab20]
83907 ms | | -[AKAppleIDAuthenticationContext authKitAccount:0x16b31a598]
83907 ms | | -[AKAppleIDAuthenticationContext altDSID]
83907 ms | | -[AKAppleIDAuthenticationContext altDSID]

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|   |   | -[AKAppleIDAuthenticationContext DSID]
83907 ms   |   |   | -[AKAppleIDAuthenticationContext username]
83907 ms   |   |   | +[AKAccountManager sharedInstance]
83907 ms   |   |   | +[AKAccountManager isAccountsFrameworkAvailable]
83907 ms   |   |   | -[AKAccountManager authKitAccountWithAppleID:0x126a053b0]
83907 ms   |   |   | -[AKAccountManager authKitAccountType]
/* TID 0x2ee7 */
83907 ms   |   | +[AKADIPProxy dispose:0x126b0e120]
83907 ms   |   | +[AKADIPProxy dispose:0x126b077e0]
/* TID 0x2767 */
83907 ms   |   | -[NSXPConnection synchronousRemoteObjectProxyWithErrorHandler:0x16b
31a080]
83907 ms   |   | -[NSXPConnection _remoteObjectInterfaceClass]
83907 ms   |   | -[NSXPCInterface _customSubclass]
/* TID 0x2ee7 */
83907 ms   |   | -[AKAnisetteData setMachineID:0x126b05830]
83907 ms   |   | -[AKAnisetteData setOneTimePassword:0x126b0e0e0]
83908 ms   |   | -[AKAnisetteData setRoutingInfo:0x3050500]
83908 ms   -[NSXPCInterface _interfaceForArgument:0x0 ofSelector:0x19d37a17a reply:0x1]
83908 ms   -[NSXPCCoder init]
/* TID 0x2767 */
83908 ms   |   | -[NSXPCInterface _methodSignatureForRemoteSelector:0x19cef453]
/* TID 0x2ee7 */
83908 ms   -[AKAnisetteData encodeWithCoder:0x12900f600]
/* TID 0x2767 */
83908 ms   |   | -[NSXPConnection _sendInvocation:0x16b319da0 orArguments:0x0 count:
0x0 methodSignature:0x9d85aaafdd9ffdaff selector:0x19cef453 withProxy:0x126a23790]
83908 ms   |   | -[NSXPCInterface _interfaceForArgument:0x0 ofSelector:0x19cef4
53 reply:0x0]
83908 ms   |   | -[NSXPCCoder init]
/* TID 0x2ee7 */
83908 ms   -[NSXPCCoder dealloc]
83908 ms   -[AKAnisetteData .cxx_destruct]
/* TID 0x2767 */
83908 ms   |   | -[NSXPCCoder dealloc]
83908 ms   |   | -[NSXPCInterface _hasProxiesInReplyBlockArgumentsOfSelector:0x1
9cef453]
83908 ms   |   | -[NSXPConnection _decodeAndInvokeReplyBlockWithEvent:0x126a23e
10 sequence:0x2 replyInfo:0x126a23950]
83908 ms   |   | -[NSXPCCoder init]

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|   |   | -[NSXPCInterface _interfaceForArgument:0x0 ofSelector:0x19cef453 reply:0
x0]
83927 ms   |   |   | -[NSXPCCoder init]
83927 ms   |   |   | -[NSXPCCoder dealloc]
83927 ms   |   |   | -[NSXPCInterface _hasProxiesInReplyBlockArgumentsOfSelector:0x19cef453]
83927 ms   |   |   | -[NSXPCCConnection _decodeAndInvokeReplyBlockWithEvent:0x126b16e70 sequenc
e:0x4 replyInfo:0x126a23c40]
83927 ms   |   |   | -[NSXPCCoder init]
83927 ms   |   |   | -[NSXPCInterface _selectorIsAllowed:0x19cef453 isReply:0x1 methodSi
gnature:0x16b318f90 allowedClasses:0x16b318f98]
83927 ms   |   |   | -[NSXPCCoder dealloc]
83927 ms   |   |   | +[AKAccountManager sharedInstance]
83927 ms   |   |   | +[AKAccountManager isAccountsFrameworkAvailable]
83927 ms   |   |   | -[AKAccountManager servicesUsingAccount:0x126b0aa10]
83928 ms   |   |   | -[AKServiceContr
ollerImpl _executeRequest:0x126b07210 completion:0x16b31a748]
83928 ms   |   |   | -[AKURLRequ
estProviderImpl shouldCacheResource]
83928 ms   |   |   | +[AKURLSess
ion sharedURLSession]
83928 ms   |   |   | -[AKURLSess
ion beginAuthenticationDataTaskWithRequest:0x126b07210 completionHandler:0x16b31a6e0]
83928 ms   |   |   | -[AKUR
LSession beginDataTaskWithRequest:0x126b07210 completionHandler:0x16b31a650]
83928 ms   -[AKTrafficClearanceRequest .cxx_destruct]
83928 ms   -[AKAppleIDServerResourceLoadDelegate .cxx_destruct]
/* TID 0x4a03 */
83928 ms   -[AKURLSession _URLSession]
83931 ms   -[AKAppleIDSession copyWithZone:0x0]
83931 ms   | -[AKAppleIDSession initWithIdentifier:0x1ea6ed738]
83931 ms   -[AKURLDataTask setRequest:0x126b07210]
83931 ms   -[AKURLDataTask setRetryCount:0x0]
83931 ms   -[AKURLDataTask setCompletionHandler:0x126b0e360]
83932 ms   -[AKURLDataTask setUnderlyingTask:0x126a23790]
83934 ms   -[AKAppleIDSession URLSession:0x125e16f80 task:0x126a23790 getAppleIDRequest
OrHeadersForResponse:0x0 completionHandler:0x16b4be680]
83934 ms   | -[AKAppleIDSession _generateAppleIDHeadersForSessionTask:0x126a23790 wi
thCompletion:0x16b4be5c8]
83934 ms   |   | -[AKAppleIDSession _nativeAnisetteController]
83934 ms   |   | -[AKAnisetteProvisioningController init]
83934 ms   |   | -[AKAnisetteProvisioningController anisetteDataForURLRequest:0x126
a18120 completion:0x16b4be488]
83934 ms   |   | -[AKAnisetteProvisioningController fetchAnisetteDataAndProv
isionIfNecessary:0x1 withCompletion:0x16b4be488]
83934 ms   |   | -[AKAnisetteProvisioningController _anisetteServiceConne
ction]

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83934 ms | | | | | -[NSXPCCConnection initWithMachServiceName:0x1ea6f09
b8 options:0x0]
83934 ms | | | | | | -[NSXPCCConnection init]
83934 ms | | | | | +[AKAnisetteProvisioningDaemonInterface XPCInterface
e]
83934 ms | | | | | -[NSXPCCConnection setRemoteObjectInterface:0x125d16
640]
83934 ms | | | | | -[NSXPCCConnection setExportedObject:0x126a243f0]
83934 ms | | | | | +[AKAnisetteProvisioningClientInterface XPCInterface
e]
83934 ms | | | | | -[NSXPCCConnection setExportedInterface:0x125d16a50]
83934 ms | | | | | -[NSXPCCConnection setInterruptionHandler:0x16b4be1f
0]
83934 ms | | | | | -[NSXPCCConnection setInvalidationHandler:0x16b4be1c
8]
83934 ms | | | | | | -[NSXPCCConnection resume]
83934 ms | | | | | -[NSXPCCConnection remoteObjectProxyWithErrorHandler:0x16
b4be2a8]
83935 ms | | | | | | -[NSXPCCConnection _remoteObjectInterfaceClass]
83935 ms | | | | | | | -[NSXPCInterface _customSubclass]
83935 ms | | | | | | -[NSXPCInterface _methodSignatureForRemoteSelector:0x19d
37a17a]
83935 ms | | | | | | -[NSXPCCConnection _sendInvocation:0x16b4bdff0 orArgument
s:0x0 count:0x0 methodSignature:0x9d85aaafdd9ff48ff selector:0x19d37a17a withProxy:0x126
b17cd0]
83935 ms | | | | | | | -[NSXPCInterface _interfaceForArgument:0x1 ofSelect
or:0x19d37a17a reply:0x0]
83935 ms | | | | | | -[NSXPCCoder init]
83935 ms | | | | | | -[NSXPCCoder dealloc]
83935 ms | | | | | | -[NSXPCInterface _hasProxiesInReplyBlockArgumentsOf
Selector:0x19d37a17a]
/* TID 0x2767 */
83935 ms -[NSXPCListener serviceName]
83935 ms -[NSXPCCConnection init]
83935 ms -[NSXPCListener delegate]
83935 ms -[NSXPCListener delegate]
83935 ms -[AKDaemonConnectionManager listener:0x126907500 shouldAcceptNewConnection:0
x126a24be0]
83935 ms | -[AKClient initWithConnection:0x126a24be0]
83935 ms | -[AKDaemonConnectionManager shouldAllowClient:0x126a254e0 logging:0x16b
31a598]
83935 ms | | -[AKClient hasWriteAccess]
83935 ms | | | -[AKClient _boolValueForEntitlement:0x10503a2b0]
83935 ms | | | | -[NSXPCCConnection valueForEntitlement:0x10503a2b0]
83935 ms | | | | | -[NSXPCCConnection auditToken]
83935 ms | | -[AKClient hasInternalAccess]
83935 ms | | | -[AKClient hasOwnerAccess]
83935 ms | | | | -[AKClient _boolValueForEntitlement:0x10503a290]
83936 ms | | | | | -[NSXPCCConnection valueForEntitlement:0x10503a290]
83936 ms | | | | | | -[NSXPCCConnection auditToken]
83936 ms | | | | | -[AKClient _boolValueForEntitlement:0x10503a270]
83936 ms | | | | | | -[NSXPCCConnection valueForEntitlement:0x10503a270]
83936 ms | | | | | | | -[NSXPCCConnection auditToken]
83936 ms | | | | -[AKClient description]
83936 ms | | | | | -[AKClient name]
83936 ms | | | | | | -[NSXPCCConnection processIdentifier]

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83936 ms |     |     | -[NSXPConnection processIdentifier]
83936 ms |     |     | -[AKAnisetteProvisioningService initWithClient:0x126a254e0]
83936 ms |     |     | +[AKAbsintheSigner sharedSigner]
83936 ms |     |     | +[AKAttestationSigner sharedSigner]
83936 ms |     |     -[NSXPConnection setExportedObject:0x126a255f0]
83936 ms |     |     +[AKAnisetteProvisioningDaemonInterface XPCInterface]
83936 ms |     |     -[NSXPConnection setExportedInterface:0x125d16640]
83936 ms |     |     +[AKAnisetteProvisioningClientInterface XPCInterface]
83936 ms |     |     -[NSXPConnection setRemoteObjectInterface:0x125d16a50]
83936 ms |     |     -[NSXPConnection resume]
83936 ms |     -[NSXPConnection _decodeAndInvokeMessageWithEvent:0x126a257f0 flags:0x21]
83936 ms |     |     -[NSXPCCoder init]
83936 ms |     |     -[NSXPCInterface _selectorIsAllowed:0x19d37a17a isReply:0x0 methodSignature:0x16b31a0d0 allowedClasses:0x16b31a0d8]
83936 ms |     |     -[NSXPCCoder dealloc]
83936 ms |     |     -[NSXPCInterface _methodSignatureForReplyBlockOfSelector:0x19d37a17a]
83936 ms |     |     -[AKAnisetteProvisioningService fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b31a2a0]
83936 ms |     |     | -[AKClient hasInternalPrivateAccess]
83936 ms |     |     |     -[AKClient hasInternalPrivateEntitlementAccess]
83936 ms |     |     |     | -[AKClient hasInternalAccess]
83936 ms |     |     |     |     -[AKClient hasOwnerAccess]
83936 ms |     |     |     |     | -[AKClient _boolValueForEntitlement:0x10503a290]
83936 ms |     |     |     |     |     -[NSXPConnection valueForEntitlement:0x10503a290]
83936 ms |     |     |     |     |     | -[NSXPConnection auditToken]
83936 ms |     |     |     |     |     | -[AKClient _boolValueForEntitlement:0x10503a270]
83936 ms |     |     |     |     |     | -[NSXPConnection valueForEntitlement:0x10503a270]
83936 ms |     |     |     |     |     | -[NSXPConnection auditToken]
83936 ms |     |     |     -[AKAnisetteProvisioningService _fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b31a2a0]
83936 ms |     |     |     | -[AKAnisetteProvisioningService _helperServiceForDevice:0x0]
83936 ms |     |     |     |     -[AKAnisetteProvisioningService _nativeAnisetteService]
83936 ms |     |     |     |     | -[AKNativeAnisetteService initWithClient:0x126a254e0]
83936 ms |     |     |     |     | -[AKNativeAnisetteService fetchAnisetteDataAndProvisionIfNecessary:0x1 withCompletion:0x16b31a2a0]
83936 ms +[AKNativeAnisetteService lastKnownActiveAnisetteDSID]
83936 ms |     +[AKURLBag bagForAltDSID:0x0]
83936 ms |     | +[AKURLBag sharedBag]
83936 ms |     -[AKURLBag lastKnownIDMSEnvironment]
83936 ms |     | +[AKConfiguration sharedConfiguration]
83936 ms |     | -[AKConfiguration lastKnownIDMSEnvironment]
83936 ms |     |     | -[AKConfiguration configurationValueForKey:0x1ea6f0118]
83936 ms |     |     +[AKNativeAnisetteService activeAnisetteDSIDWithEnvironment:0x0]
83936 ms -[AKNativeAnisetteService _unsafe_anisetteDataWithRoutingInfoForDSID:0xffffffffffffffffffff withError:0x16b31a8a8]
83936 ms |     | +[AKADIPProxy getIDMSRoutingInfo:0x16b31a838 forDSID:0xffffffffffffffffffff]
83937 ms |     | -[AKNativeAnisetteService _unsafe_anisetteDataForDSID:0xffffffffffffffffffff e withError:0x16b31a8a8]
83937 ms |     |     | +[AKADIPProxy requestOTPForDSID:0xffffffffffffffffffff outMID:0x16b31a7e8 outMIDSize:0x16b31a7dc outOTP:0x16b31a7e0 outOTPSize:0x16b31a7d8]
83937 ms |     |     | +[AKADIPProxy dispose:0x126a26580]
83937 ms |     |     | +[AKADIPProxy dispose:0x126a24a80]

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83937 ms      |     | -[AKAnisetteData setMachineID:0x126a25670]
83937 ms      |     | -[AKAnisetteData setOneTimePassword:0x126a256d0]
83937 ms      |     | -[AKAnisetteData setRoutingInfo:0x3050500]
83937 ms      -[NSXPCInterface _interfaceForArgument:0x0 ofSelector:0x19d37a17a reply:0x1]
83937 ms      -[NSXPCCoder init]
83937 ms      -[AKAnisetteData encodeWithCoder:0x128811000]
83937 ms      -[NSXPCCoder dealloc]
83937 ms      -[AKAnisetteData .cxx_destruct]
83937 ms      -[NSXPConnection _decodeAndInvokeReplyBlockWithEvent:0x126a25620 sequence:0
x1 replyInfo:0x126b05fd0]
83937 ms      | -[NSXPCCoder init]
83937 ms      | -[NSXPCInterface _selectorIsAllowed:0x19d37a17a isReply:0x1 methodSigna
ture:0x16b31a3f0 allowedClasses:0x16b31a3f8]
83937 ms      | +[AKAnisetteData supportsSecureCoding]
83937 ms      | -[AKAnisetteData initWithCoder:0x12880d000]
83937 ms      | -[AKAppleIDSession _genericAppleIDHeadersDictionaryForRequest:0x126a181
20]
83938 ms      |     | +[AKDevice currentDevice]
83938 ms      |     | -[AKDevice locale]
83938 ms      | -[AKAnisetteData machineID]
83938 ms      | -[AKAnisetteData oneTimePassword]
83938 ms      | -[AKAnisetteData routingInfo]
83938 ms      | +[AKDevice currentDevice]
83938 ms      | -[AKDevice localUserUUID]
83938 ms      | +[AKConfiguration sharedConfiguration]
83938 ms      | -[AKConfiguration shouldAllowTestApplication]
83938 ms      |     | -[AKConfiguration configurationValueForKey:0x1ea6efff8]
83938 ms      | -[AKAppleIDSession _pairedDeviceAnisetteController]
83938 ms      -[AKAnisetteData .cxx_destruct]
83938 ms      -[NSXPCCoder dealloc]
84336 ms      -[NSXPConnection invalidationHandler]
84337 ms      -[NSXPConnection _additionalInvalidationHandler]
84337 ms      -[NSXPConnection setInvalidationHandler:0x0]
84337 ms      -[NSXPConnection setInterruptionHandler:0x0]
84337 ms      -[NSXPConnection setExportedObject:0x0]
84337 ms      | -[AKAnisetteProvisioningService .cxx_destruct]
84337 ms      |     | -[AKNativeAnisetteService .cxx_destruct]
84338 ms      |     | -[AKClient .cxx_destruct]
84338 ms      -[NSXPConnection dealloc]
84342 ms      -[NSXPCListener serviceName]
84342 ms      -[NSXPConnection init]
84342 ms      -[NSXPCListener delegate]
84342 ms      -[NSXPCListener delegate]
84343 ms      -[AKDaemonConnectionManager listener:0x126907500 shouldAcceptNewConnection:0
x125e33170]
84343 ms      | -[AKClient initWithConnection:0x125e33170]
84343 ms      | -[AKDaemonConnectionManager shouldAllowClient:0x125e2b900 logging:0x16b
31a598]
84343 ms      |     | -[AKClient hasWriteAccess]
84343 ms      |     |     | -[AKClient _boolValueForEntitlement:0x10503a2b0]
84343 ms      |     |     | -[NSXPConnection valueForEntitlement:0x10503a2b0]
84343 ms      |     |     |     | -[NSXPConnection auditToken]
84347 ms      |     | -[AKClient description]
84347 ms      |     |     | -[AKClient name]
84347 ms      |     |     |     | -[NSXPConnection processIdentifier]
84347 ms      |     |     |     | -[NSXPConnection processIdentifier]

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84347 ms | - [AKAnisetteProvisioningService initWithClient:0x125e2b900]
84347 ms |   | +[AKAbsintheSigner sharedSigner]
84347 ms |   | +[AKAttestationSigner sharedSigner]
84348 ms | - [NSXPConnection setExportedObject:0x126889ce0]
84348 ms | +[AKAnisetteProvisioningDaemonInterface XPCInterface]
84348 ms | - [NSXPConnection setExportedInterface:0x125d16640]
84348 ms | +[AKAnisetteProvisioningClientInterface XPCInterface]
84348 ms | - [NSXPConnection setRemoteObjectInterface:0x125d16a50]
84348 ms | - [NSXPConnection resume]
84349 ms - [NSXPConnection _decodeAndInvokeMessageWithEvent:0x12688b5c0 flags:0x21]
84349 ms | - [NSXPCCoder init]
84349 ms | - [NSXPCInterface _selectorIsAllowed:0x19d37a17a isReply:0x0 methodSignature:0x16b31a0d0 allowedClasses:0x16b31a0d8]
84349 ms | - [NSXPCCoder dealloc]
84349 ms | - [NSXPCInterface _methodSignatureForReplyBlockOfSelector:0x19d37a17a]
84349 ms | - [AKAnisetteProvisioningService fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b31a2a0]
84349 ms |   | - [AKClient hasInternalPrivateAccess]
84349 ms |   | - [AKClient hasInternalPrivateEntitlementAccess]
84349 ms |   |   | - [AKClient hasInternalAccess]
84349 ms |   |   | - [AKClient hasOwnerAccess]
84349 ms |   |   |   | - [AKClient _boolValueForEntitlement:0x10503a290]
84349 ms |   |   |   | - [NSXPConnection valueForEntitlement:0x10503a290]
84349 ms |   |   |   |   | - [NSXPConnection auditToken]
84352 ms |   |   |   |   | - [AKClient _boolValueForEntitlement:0x10503a270]
84352 ms |   |   |   |   | - [NSXPConnection valueForEntitlement:0x10503a270]
84352 ms |   |   |   |   | - [NSXPConnection auditToken]
84353 ms |   | - [AKAnisetteProvisioningService _fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b31a2a0]
84353 ms |   |   | - [AKAnisetteProvisioningService _helperServiceForDevice:0x0]
84353 ms |   |   | - [AKAnisetteProvisioningService _nativeAnisetteService]
84353 ms |   |   | - [AKNativeAnisetteService initWithClient:0x125e2b900]
84353 ms |   |   | - [AKNativeAnisetteService fetchAnisetteDataAndProvisionIfNecessary:0x1 withCompletion:0x16b31a2a0]
84353 ms +[AKNativeAnisetteService lastKnownActiveAnisetteDSID]
84353 ms | +[AKURLBag bagForAltDSID:0x0]
84353 ms |   | +[AKURLBag sharedBag]
84353 ms | - [AKURLBag lastKnownIDMSEnvironment]
84353 ms |   | +[AKConfiguration sharedConfiguration]
84353 ms |   | - [AKConfiguration lastKnownIDMSEnvironment]
84353 ms |   |   | - [AKConfiguration configurationValueForKey:0x1ea6f0118]
84353 ms |   | +[AKNativeAnisetteService activeAnisetteDSIDWithEnvironment:0x0]
84353 ms - [AKNativeAnisetteService _unsafe_anisetteDataWithRoutingInfoForDSID:0xffffffffffff withError:0x16b31a8a8]
84353 ms | +[AKADIPProxy getIDMSRoutingInfo:0x16b31a838 forDSID:0xffffffffffff withError:0x16b31a8a8]
84355 ms | - [AKNativeAnisetteService _unsafe_anisetteDataForDSID:0xffffffffffff withError:0x16b31a8a8]
84355 ms |   | +[AKADIPProxy requestOTPForDSID:0xffffffffffff withMid:0x16b31a7e8 outMidSize:0x16b31a7dc outOTP:0x16b31a7e0 outOTPSize:0x16b31a7d8]
84355 ms |   | +[AKADIPProxy dispose:0x125e325e0]
84355 ms |   | +[AKADIPProxy dispose:0x125e2b940]
84355 ms |   | - [AKAnisetteData setMachineID:0x125e2bf20]

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84355 ms      |     | -[AKAnisetteData setOneTimePassword:0x125e2c070]
84355 ms      |     | -[AKAnisetteData setRoutingInfo:0x3050500]
84355 ms      -[NSXPConnection _interfaceForArgument:0x0 ofSelector:0x19d37a17a reply:0x1]
84355 ms      -[NSXPCCoder init]
84355 ms      -[AKAnisetteData encodeWithCoder:0x127819800]
84355 ms      -[NSXPCCoder dealloc]
84355 ms      -[AKAnisetteData .cxx_destruct]
84390 ms      -[AKURLSession URLSession:0x125e16f80 didReceiveChallenge:0x12694ab10 completionHandler:0x16b31a698]
84390 ms      | +[AKCertificatePinning isValidCertificateTrust:0x126949850 forHostname:0x12694a840]
84687 ms      -[NSXPConnection invalidationHandler]
84687 ms      -[NSXPConnection _additionalInvalidationHandler]
84688 ms      -[NSXPConnection setInvalidationHandler:0x0]
84688 ms      -[NSXPConnection setInterruptionHandler:0x0]
84688 ms      -[NSXPConnection setExportedObject:0x0]
84688 ms      | -[AKAnisetteProvisioningService .cxx_destruct]
84688 ms      | | -[AKNativeAnisetteService .cxx_destruct]
84689 ms      | | -[AKClient .cxx_destruct]
/* TID 0x9e33 */
84689 ms      -[NSXPCListener serviceName]
84689 ms      -[NSXPConnection init]
84689 ms      -[NSXPCListener delegate]
84689 ms      -[NSXPCListener delegate]
84689 ms      -[AKDaemonConnectionManager listener:0x126907500 shouldAcceptNewConnection:0x126a04b30]
84689 ms      | -[AKClient initWithConnection:0x126a04b30]
84689 ms      | -[AKDaemonConnectionManager shouldAllowClient:0x126a10290 logging:0x16b432598]
84689 ms      | | -[AKClient hasWriteAccess]
84689 ms      | | | -[AKClient _boolValueForEntitlement:0x10503a2b0]
84689 ms      | | | | -[NSXPConnection valueForEntitlement:0x10503a2b0]
84689 ms      | | | | -[NSXPConnection auditToken]
84690 ms      | | -[AKClient description]
84690 ms      | | | -[AKClient name]
84690 ms      | | | | -[NSXPConnection processIdentifier]
84690 ms      | | | | -[NSXPConnection processIdentifier]
84690 ms      | | -[AKAnisetteProvisioningService initWithClient:0x126a10290]
84690 ms      | | +[AKAbsintheSigner sharedSigner]
84690 ms      | | +[AKAttestationSigner sharedSigner]
84690 ms      | -[NSXPConnection setExportedObject:0x126a05f60]
84690 ms      | +[AKAnisetteProvisioningDaemonInterface XPCInterface]
84690 ms      | -[NSXPConnection setExportedInterface:0x125d16640]
84690 ms      | +[AKAnisetteProvisioningClientInterface XPCInterface]
84690 ms      | -[NSXPConnection setRemoteObjectInterface:0x125d16a50]
84690 ms      | -[NSXPConnection resume]
84691 ms      -[NSXPConnection _decodeAndInvokeMessageWithEvent:0x126a0c780 flags:0x21]
84691 ms      | -[NSXPCCoder init]
84691 ms      | -[NSXPConnection _selectorIsAllowed:0x19d37a17a isReply:0x0 methodSignature:0x16b4320d0 allowedClasses:0x16b4320d8]
84691 ms      | -[NSXPCCoder dealloc]
84691 ms      | -[NSXPConnection _methodSignatureForReplyBlockOfSelector:0x19d37a17a]
84691 ms      | -[AKAnisetteProvisioningService fetchAnisetteDataAndProvisionIfNecessary:0x1 device:0x0 completion:0x16b4322a0]
84691 ms      | | -[AKClient hasInternalPrivateAccess]
84691 ms      | | | -[AKClient hasInternalPrivateEntitlementAccess]

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84691 ms | | | | | -[AKClient hasInternalAccess]
84691 ms | | | | | | -[AKClient hasOwnerAccess]
84691 ms | | | | | | | -[AKClient _boolValueForEntitlement:0x10503a29
0]
84691 ms | | | | | | | | -[NSXPCCConnection valueForEntitlement:0x1
0503a290]
84691 ms | | | | | | | | | -[NSXPCCConnection auditToken]
/* TID 0x2767 */
84691 ms -[NSXPCCConnection dealloc]
/* TID 0x9e33 */
84692 ms | | | | | | | -[AKClient _boolValueForEntitlement:0x10503a270]
84692 ms | | | | | | | | -[NSXPCCConnection valueForEntitlement:0x10503a
270]
84692 ms | | | | | | | | | -[NSXPCCConnection auditToken]
84692 ms | | | | | -[AKAnisetteProvisioningService _fetchAnisetteDataAndProvisionIfNe
cessary:0x1 device:0x0 completion:0x16b4322a0]
84692 ms | | | | | | -[AKAnisetteProvisioningService _helperServiceForDevice:0x0]
84692 ms | | | | | | | -[AKAnisetteProvisioningService _nativeAnisetteService]
84692 ms | | | | | | | | -[AKNativeAnisetteService initWithClient:0x126a1029
0]
84692 ms | | | | | | | | | -[AKNativeAnisetteService fetchAnisetteDataAndProvisionIfNece
ssary:0x1 withCompletion:0x16b4322a0]
84692 ms +[AKNativeAnisetteService lastKnownActiveAnisetteDSID]
84692 ms | +[AKURLBag bagForAltDSID:0x0]
84692 ms | | +[AKURLBag sharedBag]
84692 ms | -[AKURLBag lastKnownIDMSEnvironment]
84692 ms | | +[AKConfiguration sharedConfiguration]
84692 ms | | | -[AKConfiguration lastKnownIDMSEnvironment]
84692 ms | | | | -[AKConfiguration configurationValueForKey:0x1ea6f0118]
84692 ms | | +[AKNativeAnisetteService activeAnisetteDSIDWithEnvironment:0x0]
84692 ms -[AKNativeAnisetteService _unsafe_anisetteDataWithRoutingInfoForDSID:0xffffffff
ffffffffffff withError:0x16b4328a8]
84692 ms | +[AKADIPProxy getIDMSRoutingInfo:0x16b432838 forDSID:0xffffffffffff
fffffe]
84693 ms | -[AKNativeAnisetteService _unsafe_anisetteDataForDSID:0xffffffffffff
fffffe withError:0x16b4328a8]
84693 ms | | +[AKADIPProxy requestOTPForDSID:0xfffffffffffffe outMID:0x16b4327
e8 outMIDSize:0x16b4327dc outOTP:0x16b4327e0 outOTPSIZE:0x16b4327d8]
84693 ms | | | +[AKADIPProxy dispose:0x126a29160]
84693 ms | | | +[AKADIPProxy dispose:0x126a2aa70]
84693 ms | | | -[AKAnisetteData setMachineID:0x126a0c7d0]
84693 ms | | | -[AKAnisetteData setOneTimePassword:0x126a0c830]
84693 ms | | | -[AKAnisetteData setRoutingInfo:0x3050500]
84693 ms -[NSXPCTInterface _interfaceForArgument:0x0 ofSelector:0x19d37a17a reply:0x1]
84693 ms -[NSXPCCoder init]
84693 ms -[AKAnisetteData encodeWithCoder:0x128811000]
84693 ms -[NSXPCCoder dealloc]
84693 ms -[AKAnisetteData .cxx_destruct]
84866 ms -[AKURLSession URLSession:0x125e16f80 dataTask:0x126a23790 didReceiveData:0x
125d86ce0]
84866 ms | -[AKURLDataTask receivedData]
84867 ms | | -[AKURLDataTask setReceivedData:0x125d87560]
/* TID 0x2767 */
84868 ms -[AKURLSession URLSession:0x125e16f80 task:0x126a23790 didCompleteWithError:
0x0]
84868 ms | -[AKURLSession _unsafe_completeTask:0x126b043e0 withError:0x0]
84868 ms | | -[AKURLDataTask underlyingTask]

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84868 ms | | | -[AKURLDataTask _completeWithError:0x0]
84868 ms | | | | -[AKURLDataTask setCanceledOrCompleted:0x1]
84868 ms | | | | -[AKURLDataTask receivedData]
84869 ms -[AKURLDataTask description]
84869 ms -[AKGrandSlamRequestProvider validateResponseData:0x125d87560 error:0x16b31a
de8]
84869 ms | -[AKURLRequestProviderImpl validateResponseData:0x125d87560 error:0x16b
31ade8]
84869 ms | | -[AKURLRequestProviderImpl _validateDataExists:0x125d87560]
84869 ms | | -[AKURLRequestProviderImpl _validateResponseBodyFormat]
84869 ms | | | -[AKGrandSlamRequestProvider expectedResponseType]
84870 ms | | | -[AKURLRequestProviderImpl _validateErrorCode:0x9b85aafdd9ffd30d w
ithKey:0x1ea6eeb58]
84870 ms -[AKAppleIDAuthenticationContext username]
84870 ms -[AKAppleIDAuthenticationService _correlateContext:0x126a0bf00 withAuthMode:
0x1]
84870 ms | -[AKAppleIDAuthenticationContext setAuthenticationMode:0x1]
84870 ms | -[AKAppleIDAuthenticationContext authenticationType]
84870 ms -[AKAppleIDAuthenticationContext username]
84870 ms -[AKAppleIDAuthenticationContext authenticationType]
84870 ms -[AKAuthenticationUILiaison presentBasicLoginUIForContext:0x126a0bf00 client
:0x1269481d0 completion:0x16b31ab40]
84871 ms | +[AKCAAuthPromptReporter reportPromptByClient:0x1269481d0 withContext:0
x126a0bf00]
84871 ms | | -[AKAppleIDAuthenticationContext isFirstTimeLogin]
84871 ms | +[AKAutoBugCapture shouldCapturePromptBugForContext:0x126a0bf00]
84871 ms | | -[AKAppleIDAuthenticationContext _capabilityForUIDisplay]
84871 ms | -[AKAuthenticationUILiaison _performBlockWithClient:0x1269481d0 context
:0x126a0bf00 requireFullUICapability:0x0 allowRedirectToSettings:0x1 block:0x16b31aac0]
84871 ms | | -[AKAppleIDAuthenticationContext _capabilityForUIDisplay]
84871 ms | | -[AKAppleIDAuthenticationContext _performUIOutOfProcess]
84872 ms | | -[AKAppleIDAuthenticationContext _performUIOutOfProcess]
84872 ms -[AKURLDataTask .cxx_destruct]
84872 ms | -[AKAppleIDSesson .cxx_destruct]
/* TID 0x4a03 */
84872 ms -[AKClient proxyWithErrorHandler:0x16b4beda0]
84872 ms | -[NSXPCCConnection remoteObjectProxyWithErrorHandler:0x16b4beda0]
84872 ms | | -[NSXPCCConnection _remoteObjectInterfaceClass]
84872 ms | | | -[NSXPCInterface _customSubclass]
84873 ms -[NSXPCCConnection _sendSelector:0x19d20bd88 withProxy:0x12688ae80 arg1:0x126
a0bf00 arg2:0x16b4bed70]
84873 ms | -[NSXPCInterface _methodSignatureForRemoteSelector:0x19d20bd88]
84873 ms | -[NSXPCCConnection _sendInvocation:0x0 orArguments:0x16b4bece8 count:0x2
methodSignature:0x9d85aafdd9ff885f selector:0x19d20bd88 withProxy:0x12688ae80]
84873 ms | | -[NSXPCInterface _interfaceForArgument:0x0 ofSelector:0x19d20bd88
reply:0x0]
84873 ms | | | -[NSXPCCoder init]
/* TID 0x2767 */
84873 ms | | | -[AKAnisetteProvisioningController dealloc]
84874 ms | | | | -[NSXPCCConnection invalidate]
/* TID 0x4a03 */
84874 ms | | | -[AKAppleIDAuthenticationContext encodeWithCoder:0x12701d000]
/* TID 0x2767 */
84874 ms | | | | -[AKAnisetteProvisioningController .cxx_destruct]
/* TID 0x2ee7 */
84874 ms -[NSXPCCConnection invalidationHandler]

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84874 ms -[NSXPCCConnection _additionalInvalidationHandler]
84874 ms -[NSXPCCConnection setInvalidationHandler:0x0]
/* TID 0x9e33 */
84874 ms -[NSXPCCConnection invalidationHandler]
/* TID 0x2ee7 */
84875 ms -[NSXPCCConnection setInterruptionHandler:0x0]
/* TID 0x9e33 */
84875 ms -[NSXPCCConnection _additionalInvalidationHandler]
/* TID 0x4a03 */
84875 ms | | -[NSXPCCoder dealloc]
/* TID 0x9e33 */
84875 ms -[NSXPCCConnection setInvalidationHandler:0x0]
84876 ms -[NSXPCCConnection setInterruptionHandler:0x0]
84876 ms -[NSXPCCConnection setExportedObject:0x0]
/* TID 0x4a03 */
84876 ms | | -[NSXPCInterface _hasProxiesInReplyBlockArgumentsOfSelector:0x19d2
0bd88]
/* TID 0x2767 */
84876 ms -[AKServiceControllerImpl .cxx_destruct]
84876 ms | -[AKURLRequestProviderImpl .cxx_destruct]
/* TID 0x9e33 */
84876 ms -[NSXPCCConnection dealloc]
/* TID 0x2ee7 */
84877 ms -[NSXPCCConnection setExportedObject:0x0]
84877 ms | -[AKAnisetteProvisioningService .cxx_destruct]
84877 ms | | -[AKNativeAnisetteService .cxx_destruct]
84877 ms | | -[AKClient .cxx_destruct]
84877 ms -[NSXPCCConnection dealloc]
/* TID 0x4a03 */
84959 ms -[NSXPCCConnection invalidationHandler]
84959 ms -[NSXPCCConnection _additionalInvalidationHandler]
84959 ms -[NSXPCCConnection setInvalidationHandler:0x0]
84959 ms -[NSXPCCConnection setInterruptionHandler:0x0]
84959 ms -[NSXPCCConnection setExportedObject:0x0]
84959 ms | -[AKAnisetteProvisioningService .cxx_destruct]
84959 ms | | -[AKNativeAnisetteService .cxx_destruct]
84959 ms | | -[AKClient .cxx_destruct]
84959 ms -[NSXPCCConnection dealloc]
114739 ms -[NSXPCCConnection invalidate]
/* TID 0x9e33 */
114740 ms -[NSXPCCConnection invalidationHandler]
114740 ms -[NSXPCCConnection _additionalInvalidationHandler]
114740 ms -[NSXPCCConnection setInvalidationHandler:0x0]
114740 ms -[NSXPCCConnection setInterruptionHandler:0x0]
114740 ms -[NSXPCCConnection setExportedObject:0x0]
114740 ms -[NSXPCInterface dealloc]
114740 ms -[ACTrackedXPCCConnection dealloc]
114740 ms | -[NSXPCCConnection dealloc]

```

## Preferences中Apple账号登录全过程

用 frida-trace 追踪 Preferences 中

用 frida-trace 去追踪， Preferences =包名 com.apple.Preferences 中的：

- Apple账号登录的完整过程
  - 第一步：输入账号，点击下一步=账号验证过程
  - 第二步：输入密码，点击下一步=账号登录过程

中的函数调用：

### frida命令

```
frida-trace -U -F com.apple.Preferences -O Preferences_accountLogin_hook.txt
```

- Option文件 Preferences\_accountLogin\_hook.txt 的内容

```
-m "*[AA* *]"
-m "*[AK* *]"
-m "*[AMS* *]"
-m "*[AS* *]"
-m "*[AC* *]"
-m "*[NSError *]"
-M "-[* classForCoder]"
-M "-[* classForKeyedArchiver]"
-M "-[AAUISignInViewController numberOfSectionsInTableView:]"
-M "-[AAUISignInViewController tableView:]"
-M "-[NSPath* *]"
-M "-[* copyWithZone:]"
-M "-[*NSCFString *]"
-M "-[*NSCFError *]"
-M "-[* *ayoutSubviews]"
-M "-[* intrinsicContentSize]"
-M "-[* viewForLastBaselineLayout]"
-M "-[* contentLayoutGuide]"
-M "-[* _updateStyleIfNeeded]"
-M "-[* _updateStackViewSpacing]"
-M "-[* _updateLabelFonts]"
-M "-[AAUILabel *]"
-M "-[AAUIBuddyView *]"
-M "-[AAUIHeaderView *]"
-M "-[* .cxx_destruct]"
-M "-[* dealloc]"
-M "-[* supportsSecureCoding]"
-M "-[* initWithCoder:]"
-M "-[ACAccountStore _clearAccountCaches]"
```

### 输出

```

...
-[NSURLSession encodeWithCoder:]: Loaded handler at "/Users/crifan/dev/dev_root/iosRevers
e/AppleStore/Preferences_app/dynamicDebug/frida/frida-trace/_handlers__/_NSURLSession/enc
odeWithCoder_.js"
Started tracing 23636 functions. Press Ctrl+C to stop.
    /* TID 0x103 */
15708 ms -[AAUISignInController initWithNibName:0x0 bundle:0x0]
15709 ms | -[AAUISignInController _commonInit]
15709 ms | | -[AAUISignInController setCanEditUsername:0x1]
15716 ms -[AAUISignInController viewDidLoad]
15716 ms | -[AAUISignInController _signInViewController]
15716 ms | | +[AAPersonaUtility verifyAndFixPersonaIfNeeded:0x28073b880 desired
Context:0x281024ae0]
15716 ms | | | -[AAUISignInViewController initWithNibName:0x0 bundle:0x0]
15716 ms | | | -[AAUISignInController serviceType]
15716 ms | | | -[AAUISignInViewController _setAkServiceType:0x0]
15716 ms | | | -[AAUISignInViewController setUsername:0x0]
15716 ms | | | -[AAUISignInController privacyLinkIdentifiers]
15716 ms | | | -[AAUISignInViewController setPrivacyLinkIdentifiers:0x281024fa0]
15716 ms | | | -[AAUISignInController serviceType]
15716 ms | | | -[AAUISignInController _allowsAccountCreationForService:0x0]
15716 ms | | | -[AAUISignInViewController setAllowsAccountCreation:0x1]
15716 ms | | | -[AAUISignInViewController setDelegate:0x103812200]
15717 ms | | | -[AAUISignInController serviceType]
15717 ms | | | -[AAUISignInController _showsServiceIconsForService:0x0]
15717 ms | | | -[AAUISignInViewController setShowServiceIcons:0x1]
15717 ms | | | -[AAUISignInViewController messageLabel]
15717 ms | | | | -[AAUISignInViewController _accountsHeaderView]
15717 ms | | | | | -[AAUISignInViewController authenticationContext]
15717 ms | | | | | | -[AKAppleIDAuthenticationContext init]
15717 ms | | | | | | | -[AKAppleIDAuthenticationContext _initWithiden
tifier:0x281321340]
15717 ms | | | | | | | -[AKAppleIDAuthenticationContext description]
15717 ms | | | | | | | -[AKAppleIDAuthenticationContext setAuthenticatio
nType:0x2]
15717 ms | | | | | | | -[AKAppleIDAuthenticationContext setFirstTimeLogin:
0x1]
15717 ms | | | | | | | -[AKAppleIDAuthenticationInAppContext setPresenting
ViewController:0x10400ce10]
15717 ms | | | | | | | | -[AAUISignInViewController _akServiceType]
15717 ms | | | | | | | | -[AKAppleIDAuthenticationContext setServiceType:0x0
]
15717 ms | | | | | | | | -[AKAppleIDAuthenticationContext setShouldOfferSecu
rityUpgrade:0x0]
15717 ms | | | | | | | | -[AKAppleIDAuthenticationContext setShouldUpdatePer
sistentServiceTokens:0x1]
15717 ms | | | | | | | | -[AAUISignInViewController _shouldAnticipatePiggyba
cking]
15717 ms | | | | | | | | | +[AAUIHeaderView requiresConstraintBasedLayout]
15718 ms | | | | | | | | | -[AKAppleIDAuthenticationContext title]
15719 ms | | | | | | | | | -[AKAppleIDAuthenticationContext reason]
15719 ms | | | | | | | | | -[AAUISignInController serviceType]
15719 ms | | | | | | | | | -[AAUISignInController _messageStringForService:0x0]
15719 ms | | | | | | | | | -[AAUISignInController _isAuthenticatingPrimary:0x1ecb2df10]
15719 ms | | | | | | | | | -[AAUISignInViewController serviceType]
15719 ms | | | | | | | | | -[AAUISignInViewController _serviceOwnersManager]

```

```

15719 ms | | | | -[ACAccountStore init]
15719 ms | | | | -[ACAccountStore initWithRemoteEndpoint:0x0 effectiveBundleID:0x0]
15719 ms | | | | +[ACTimedExpirer expirerWithTimeout:0x1e]
15719 ms | | | | | -[ACTimedExpirer init]
15719 ms | | | | +[ACTimedExpirer expirerWithTimeout:0x1e]
15719 ms | | | | | -[ACTimedExpirer init]
15719 ms | | | | +[ACNotificationRebroadcaster sharedRebroadcaster]
15720 ms | | | | +[AACloudServiceOwner supportedServices]
15720 ms | | | | | +[AACloudServiceOwner _serviceTypeForPlatform]
15720 ms | | | | -[AACloudServiceOwner initWithAccountStore:0x2839291f0]
15720 ms | | | | -[AACloudServiceOwner accountForService:0x1ecb2df10]
15720 ms | | | | | +[AACloudServiceOwner _serviceTypeForPlatform]
15720 ms | | | | -[ACAccountStore aa_primaryAppleAccount]
15720 ms | | | | | -[ACAccountStore accountsWithAccountTypeIdentifiers:0x2810252f0 preloadedProperties:0x0 error:0x0]
15720 ms | | | | | | -[ACAccountStore remoteAccountStoreSession]
15720 ms | | | | | | | -[ACAccountStore connectionDelegate]
15720 ms | | | | | | | -[ACRemoteAccountStoreSession initWithListenerEndpoint:0x0 delegate:0x0]
15720 ms | | | | | | | | -[ACAccountStoreClientSideListener initWithDelegate:0x0]
15720 ms | | | | | | | | | -[ACAccountStore effectiveBundleID]
15720 ms | | | | | | | | | -[ACRemoteAccountStoreSession setEffectiveBundleID:0x0]
15720 ms | | | | | | | | | -[ACTimedExpirer scheduleExpiration:0x16fd69750]
15720 ms | | | | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
15720 ms | | | | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x16fd69730]
15720 ms | | | | | | | | | | -[ACRemoteAccountStoreSession _connection]
15720 ms | | | | | | | | | | | -[ACTrackedXPCCConnection init]
15720 ms | | | | | | | | | | | +[ACRemoteAccountStoreInterface XPCIinterface]
15721 ms | | | | | | | | | | | | -[ACRemoteAccountStoreSession _lockdown_configureRemoteAccountStoreWithConnection:0x28233c1e0]
15729 ms | | | | | | | | | | | | -[AAUISignInViewController _setShouldAnticipatePiggybacking:0x1]
15729 ms | | | | | | | | | | | | -[AAUISignInViewController _setAkServiceType:0x1]
15740 ms | | | | | | | | | | | | | -[AAUISignInViewController loadView]
15740 ms | | | | | | | | | | | | | | +[AAUIBuddyView requiresConstraintBasedLayout]
15741 ms | | | | | | | | | | | | | | -[AAUISignInViewController viewDidLoad]
15741 ms | | | | | | | | | | | | | | | -[AAUISignInViewController authenticationContext]
15741 ms | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext init]
15741 ms | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext _initWithIdentifier:0x281644c40]
15741 ms | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext description]
15741 ms | | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext setAuthenticationType:0x2]
15741 ms | | | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext setFirstTimeLogin:0x1]
15741 ms | | | | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationInAppContext setPresentingViewController:0x10400ce10]
15741 ms | | | | | | | | | | | | | | | | | | | | | | -[AAUISignInViewController _akServiceType]
15741 ms | | | | | | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext setServiceType:0x1]
15741 ms | | | | | | | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext setShouldOfferSecurityUpgrade:0x0]

```

```

15741 ms | | -[AKAppleIDAuthenticationContext setShouldUpdatePersistentServiceTokens:0x1]
15741 ms | | -[AAUISignInViewController _shouldAnticipatePiggybacking]
15741 ms | | -[AKAppleIDAuthenticationContext setAnticipateEscrowAttempt:0x1]
15741 ms | | -[AKAppleIDAuthenticationContext setShouldOfferSecurityUpgrade:0x1]
]
15741 ms | | -[AKAppleIDAuthenticationContext setSupportsPiggybacking:0x1]
15741 ms | -[AKAppleIDAuthenticationContext proxiedDevice]
15741 ms | -[AAUISignInViewController _cancelBarButtonItem]
15742 ms | -[AAUISignInViewController _nextBarButtonItem]
15742 ms | -[AAUISignInViewController _tableView]
15743 ms | -[AAUISignInViewController _updateConstraintsForTraitCollection:0x282b1aa00]
15744 ms -[AAUISignInViewController viewWillAppear:0x1]
15744 ms | -[AAUISignInViewController _beginObservingTextFieldDidChangeNotifications]
15744 ms | -[AAUISignInViewController _beginObservingKeyboardWillShowNotifications]
]
15744 ms | -[AAUISignInViewController _beginObservingSizeCategoryNotification]
15744 ms | -[AAUISignInViewController _setEnabled:0x1]
15744 ms | | -[AAUISignInViewController _hasValidCredentials]
15744 ms | | -[AAUISignInViewController _setUsernameCellWaiting:0x0]
15744 ms | +[AAUISignInViewController phoneNumberSupportedWithCompletion:0x16fd67ed8]
/* TID 0x1503 */
15744 ms +[AKURLBag sharedBag]
15744 ms -[AKURLBag isPhoneNumberSupportedConfig]
15744 ms | -[AKURLBag configurationAtKey:0x1e8b198f8]
15744 ms | | -[AKURLBag configurationAtKey:0x1e8b198f8 fromCache:0x0]
15744 ms | | | -[AKURLBag _configurationsFromCache:0x0 withError:0x0]
15744 ms | | | | -[AKURLBag _urlBagFromCache:0x0 withError:0x0]
15744 ms | | | | | -[AKURLBag bagProvider]
15744 ms | | | | | | -[AKAppleIDAuthenticationController init]
15744 ms | | | | | | | -[AKAppleIDAuthenticationController initWithIdentifier:0x0 daemonXPCEEndpoint:0x0]
15744 ms | | | | | | | | -[AKAppleIDAuthenticationContextManager initWithAuthenticationController:0x280781f40]
15744 ms | | | | | | | | | -[AKURLBag altDSID]
15744 ms | | | | | | | | | -[AKAppleIDAuthenticationController _urlBagFromCache:0x0 altDSID:0x0 withError:0x0]
15744 ms | | | | | | | | | | -[AKAppleIDAuthenticationController _authenticationServiceConnection]
15744 ms | | | | | | | | | | | +[AKAppleIDAuthenticationDaemonInterface XPCInterface]
15744 ms | | | | | | | | | | | +[AKAppleIDAuthenticationClientInterface XPCInterface]
/* TID 0x103 */
15752 ms -[AAUISignInViewController traitCollectionDidChange:0x282b29ce0]
15752 ms -[AAUISignInViewController _updateContentInsetWithHeight:0x282b69260]
15752 ms -[AAUISignInViewController _showOnlyPassword]
15752 ms -[AAUISignInViewController _usernameCell]
15756 ms -[AAUISignInViewController _tableHeaderView]
15756 ms | -[AAUISignInViewController _accountsHeaderView]
15757 ms | | -[AAUISignInViewController authenticationContext]
15757 ms | | | -[AKAppleIDAuthenticationContext init]
15757 ms | | | | -[AKAppleIDAuthenticationContext _initWithIdentifier:0x2

```

```

816436c0]
15757 ms | | | | -[AKAppleIDAuthenticationContext description]
15757 ms | | | | -[AKAppleIDAuthenticationContext setAuthenticationType:0x2]
15757 ms | | | | -[AKAppleIDAuthenticationContext setFirstTimeLogin:0x1]
15757 ms | | | | -[AKAppleIDAuthenticationInAppContext setPresentingViewContro
ller:0x10400ce10]
15757 ms | | | | -[AAUISignInViewController _akServiceType]
15757 ms | | | | -[AKAppleIDAuthenticationContext setServiceType:0x1]
15757 ms | | | | -[AKAppleIDAuthenticationContext setShouldOfferSecurityUpgrad
e:0x0]
15757 ms | | | | -[AKAppleIDAuthenticationContext setShouldUpdatePersistentSer
viceTokens:0x1]
15757 ms | | | | -[AAUISignInViewController _shouldAnticipatePiggybacking]
15757 ms | | | | -[AKAppleIDAuthenticationContext setAnticipateEscrowAttempt:0
x1]
15757 ms | | | | -[AKAppleIDAuthenticationContext setShouldOfferSecurityUpgrad
e:0x1]
15757 ms | | | | -[AKAppleIDAuthenticationContext setSupportsPiggybacking:0x1]
15757 ms | -[AAUISignInViewController constrainView:0x10400d440 toFillHeaderFooter
View:0x1006a4610]
15760 ms |-[AAUISignInViewController _tableFooterView]
15760 ms | +[AAUIBuddyView requiresConstraintBasedLayout]
15760 ms | -[AAUISignInViewController allowsAccountCreation]
15760 ms | -[AAUIServiceIconView initWithFrame:0x0]
15760 ms | | +[AAUIServiceIconView iconNames]
15761 ms | -[AAUISignInViewController showServiceIcons]
15761 ms | -[AAUITextView initWithFrame:0x0]
15763 ms | | -[AAUITextView _commonInit]
15763 ms | -[AAUISignInViewController _stringForFooter]
15763 ms | | -[AAUISignInViewController _isGreenTeaCapable]
15765 ms | -[AAUISignInViewController privacyLinkIdentifiers]
15765 ms | -[AAUISignInViewController privacyLinkIdentifiers]
15765 ms | -[AAUISignInViewController privacyLinkIdentifiers]
15772 ms | -[AAUISignInViewController constrainView:0x100688290 toFillHeaderFooter
View:0x1006e63b0]
15779 ms |-[AAUIServiceIconView didMoveToWindow]
15800 ms |-[AAUISignInViewController _usernameCell]
16302 ms |-[AAUISignInController viewDidAppear:0x1]
/* TID 0x1507 */
60710 ms |-[ACTimedExpirer _cancelTimer]
60710 ms | | -[ACTimedExpirer _unsafeCancelTimer]
60710 ms |-[ACAccountStoreClientSideListener connectionWasInvalidated]
/* TID 0x103 */
91748 ms |+[NSError errorWithDomain:0x1f61f0160 code:0x2 userInfo:0x0]
91748 ms | | -[NSError initWithDomain:0x1f61f0160 code:0x2 userInfo:0x0]
91748 ms |+[NSError errorWithDomain:0x1f61f01c0 code:0x104 userInfo:0x28164c600]
91748 ms | | -[NSError initWithDomain:0x1f61f01c0 code:0x104 userInfo:0x28164c600]
91789 ms |+[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
91789 ms | | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
91839 ms |-[AAUISignInViewController _keyboardWillShow:0x2816aab40]
91839 ms | | -[AAUISignInViewController _updateContentInsetWithHeight:0x1f095f050]
91840 ms |-[AAUISignInViewController _keyboardWillShow:0x2816aab40]
91841 ms | | -[AAUISignInViewController _updateContentInsetWithHeight:0x1f095f050]
93554 ms |-[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRan
ge:0x0 replacementString:0x0]
93554 ms | | -[AAUISignInViewController _isPasswordFieldVisible]

```

```

93554 ms      |    | -[AAUISignInViewController _showOnlyPassword]
93563 ms  -[AAUISignInViewController _textFieldDidChange:0x281694e40]
93563 ms      |    | -[AAUISignInViewController _isValidCredentials]
93897 ms  -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0x1 replacementString:0x0]
93897 ms      |    | -[AAUISignInViewController _isPasswordFieldVisible]
93897 ms      |    |    | -[AAUISignInViewController _showOnlyPassword]
93907 ms  -[AAUISignInViewController _textFieldDidChange:0x281658920]
93908 ms      |    | -[AAUISignInViewController _isValidCredentials]
94231 ms  -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0x3 replacementString:0x0]
94231 ms      |    | -[AAUISignInViewController _isPasswordFieldVisible]
94231 ms      |    |    | -[AAUISignInViewController _showOnlyPassword]
94240 ms  -[AAUISignInViewController _textFieldDidChange:0x281658de0]
94240 ms      |    | -[AAUISignInViewController _isValidCredentials]
94496 ms  -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0x5 replacementString:0x0]
94497 ms      |    | -[AAUISignInViewController _isPasswordFieldVisible]
94497 ms      |    |    | -[AAUISignInViewController _showOnlyPassword]
94505 ms  -[AAUISignInViewController _textFieldDidChange:0x281658d20]
94505 ms      |    | -[AAUISignInViewController _isValidCredentials]
94767 ms  -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0x6 replacementString:0x0]
94767 ms      |    | -[AAUISignInViewController _isPasswordFieldVisible]
94767 ms      |    |    | -[AAUISignInViewController _showOnlyPassword]
94778 ms  -[AAUISignInViewController _textFieldDidChange:0x281261de0]
94778 ms      |    | -[AAUISignInViewController _isValidCredentials]
94827 ms  -[AAUISignInViewController _textFieldDidChange:0x2816b05e0]
94827 ms      |    | -[AAUISignInViewController _isValidCredentials]
95134 ms  -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0x0 replacementString:0x5]
95134 ms      |    | -[AAUISignInViewController _isPasswordFieldVisible]
95134 ms      |    |    | -[AAUISignInViewController _showOnlyPassword]
95137 ms  -[AAUISignInViewController _textFieldDidChange:0x2816a2ca0]
95137 ms      |    | -[AAUISignInViewController _isValidCredentials]
95140 ms  -[AAUISignInViewController _textFieldDidChange:0x2816a2e00]
95140 ms      |    | -[AAUISignInViewController _isValidCredentials]
95164 ms  -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0x5 replacementString:0x0]
95165 ms      |    | -[AAUISignInViewController _isPasswordFieldVisible]
95165 ms      |    |    | -[AAUISignInViewController _showOnlyPassword]
95169 ms  -[AAUISignInViewController _textFieldDidChange:0x28164ece0]
95169 ms      |    | -[AAUISignInViewController _isValidCredentials]
95482 ms  -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0x6 replacementString:0x0]
95482 ms      |    | -[AAUISignInViewController _isPasswordFieldVisible]
95482 ms      |    |    | -[AAUISignInViewController _showOnlyPassword]
95492 ms  -[AAUISignInViewController _textFieldDidChange:0x281659b60]
95493 ms      |    | -[AAUISignInViewController _isValidCredentials]
95863 ms  -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0x7 replacementString:0x0]
95863 ms      |    | -[AAUISignInViewController _isPasswordFieldVisible]
95863 ms      |    |    | -[AAUISignInViewController _showOnlyPassword]
95876 ms  -[AAUISignInViewController _textFieldDidChange:0x281262a40]
95876 ms      |    | -[AAUISignInViewController _isValidCredentials]
96164 ms  -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:

```

```

ge:0x9 replacementString:0x0]
96164 ms      | -[AAUISignInViewController _isPasswordFieldVisible]
96164 ms      |      | -[AAUISignInViewController _showOnlyPassword]
96173 ms      -[AAUISignInViewController _textFieldDidChange:0x2816b9480]
96174 ms      | -[AAUISignInViewController _hasValidCredentials]
96462 ms      -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0xa replacementString:0x0]
96462 ms      | -[AAUISignInViewController _isPasswordFieldVisible]
96462 ms      |      | -[AAUISignInViewController _showOnlyPassword]
96470 ms      -[AAUISignInViewController _textFieldDidChange:0x28125c800]
96470 ms      | -[AAUISignInViewController _hasValidCredentials]
96812 ms      -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0xc replacementString:0x0]
96813 ms      | -[AAUISignInViewController _isPasswordFieldVisible]
96813 ms      |      | -[AAUISignInViewController _showOnlyPassword]
96826 ms      -[AAUISignInViewController _textFieldDidChange:0x28165ba80]
96826 ms      | -[AAUISignInViewController _hasValidCredentials]
97081 ms      -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0xd replacementString:0x0]
97081 ms      | -[AAUISignInViewController _isPasswordFieldVisible]
97081 ms      |      | -[AAUISignInViewController _showOnlyPassword]
97091 ms      -[AAUISignInViewController _textFieldDidChange:0x2816bc6c0]
97091 ms      | -[AAUISignInViewController _hasValidCredentials]
97352 ms      -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0x6 replacementString:0x8]
97353 ms      | -[AAUISignInViewController _isPasswordFieldVisible]
97353 ms      |      | -[AAUISignInViewController _showOnlyPassword]
97355 ms      -[AAUISignInViewController _textFieldDidChange:0x2816bd940]
97355 ms      | -[AAUISignInViewController _hasValidCredentials]
97358 ms      -[AAUISignInViewController _textFieldDidChange:0x2816beb40]
97358 ms      | -[AAUISignInViewController _hasValidCredentials]
97385 ms      -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0xc replacementString:0x0]
97385 ms      | -[AAUISignInViewController _isPasswordFieldVisible]
97385 ms      |      | -[AAUISignInViewController _showOnlyPassword]
97393 ms      -[AAUISignInViewController _textFieldDidChange:0x281644580]
97393 ms      | -[AAUISignInViewController _hasValidCredentials]
97610 ms      -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0xd replacementString:0x0]
97611 ms      | -[AAUISignInViewController _isPasswordFieldVisible]
97611 ms      |      | -[AAUISignInViewController _showOnlyPassword]
97619 ms      -[AAUISignInViewController _textFieldDidChange:0x2816b2d60]
97619 ms      | -[AAUISignInViewController _hasValidCredentials]
97860 ms      -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0xe replacementString:0x0]
97861 ms      | -[AAUISignInViewController _isPasswordFieldVisible]
97861 ms      |      | -[AAUISignInViewController _showOnlyPassword]
97868 ms      -[AAUISignInViewController _textFieldDidChange:0x2816bb220]
97869 ms      | -[AAUISignInViewController _hasValidCredentials]
98077 ms      -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0xf replacementString:0x0]
98077 ms      | -[AAUISignInViewController _isPasswordFieldVisible]
98077 ms      |      | -[AAUISignInViewController _showOnlyPassword]
98086 ms      -[AAUISignInViewController _textFieldDidChange:0x2816b2dc0]
98086 ms      | -[AAUISignInViewController _hasValidCredentials]
98632 ms      -[AAUISignInViewController textField:0x1020abe00 shouldChangeCharactersInRange:0x10 replacementString:0x0]

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ge:0xd replacementString:0x4]
98632 ms      | -[AAUISignInViewController _isPasswordFieldVisible]
98632 ms      | | -[AAUISignInViewController _showOnlyPassword]
98635 ms      -[AAUISignInViewController _textFieldDidChange:0x2816b1f40]
98635 ms      | -[AAUISignInViewController _hasValidCredentials]
98638 ms      -[AAUISignInViewController _textFieldDidChange:0x28164bf60]
98638 ms      | -[AAUISignInViewController _hasValidCredentials]
99358 ms      -[AAUISignInViewController _nextButtonSelected:0x10067b1a0]
99358 ms      | -[AAUISignInViewController _attemptAuthentication]
99359 ms      | | -[AAUISignInViewController _isPasswordFieldVisible]
99359 ms      | | | -[AAUISignInViewController _showOnlyPassword]
99359 ms      | | -[AAUISignInViewController authenticationContext]
99359 ms      | | | -[AKAppleIDAuthenticationContext init]
99359 ms      | | | | -[AKAppleIDAuthenticationContext initWithIdentifier:0x2
81647760]
99359 ms      | | | | -[AKAppleIDAuthenticationContext description]
99359 ms      | | | | -[AKAppleIDAuthenticationContext setAuthenticationType:0x2]
99359 ms      | | | | -[AKAppleIDAuthenticationContext setFirstTimeLogin:0x1]
99360 ms      | | | | -[AKAppleIDAuthenticationInAppContext setPresentingViewContro
ller:0x10400ce10]
99360 ms      | | | | -[AAUISignInViewController _akServiceType]
99360 ms      | | | | -[AKAppleIDAuthenticationContext setServiceType:0x1]
99360 ms      | | | | -[AKAppleIDAuthenticationContext setShouldOfferSecurityUpgrad
e:0x0]
99360 ms      | | | | -[AKAppleIDAuthenticationContext setShouldUpdatePersistentSer
viceTokens:0x1]
99360 ms      | | | | -[AAUISignInViewController _shouldAnticipatePiggybacking]
99360 ms      | | | | -[AKAppleIDAuthenticationContext setAnticipateEscrowAttempt:0
x1]
99360 ms      | | | | -[AKAppleIDAuthenticationContext setShouldOfferSecurityUpgrad
e:0x1]
99360 ms      | | | | -[AKAppleIDAuthenticationContext setSupportsPiggybacking:0x1]
99360 ms      | | | | -[AKAppleIDAuthenticationContext setNeedsCredentialRecovery:0x0]
99360 ms      | | | | -[AKAppleIDAuthenticationContext setNeedsNewAppleID:0x0]
99361 ms      | | | | -[AKAppleIDAuthenticationContext setUsername:0x281ce7930]
99361 ms      | | | | -[AKAppleIDAuthenticationContext setPassword:0x0]
99361 ms      | | | | -[AKAppleIDAuthenticationInAppContext setPasswordDelegate:0x10400
ce10]
99361 ms      | | | | -[AAUISignInViewController _isRunningInSettings]
99361 ms      | | | | -[AKAppleIDAuthenticationContext setAppProvidedContext:0x1e8b17118
]
99361 ms      | | | | -[AAUISignInViewController _attemptAuthenticationWithContext:0x104
10b850]
99361 ms      | | | | | -[AAUISignInViewController _setEnabled:0x0]
99390 ms      | | | | | -[AAUISignInViewController _keyboardWillShow:0x28125d800
]
99390 ms      | | | | | -[AAUISignInViewController _updateContentInsetWithH
eight:0x1f095f050]
99392 ms      | | | | | -[AAUISignInViewController _keyboardWillHide:0x28125d800
]
99392 ms      | | | | | -[AAUISignInViewController _updateContentInsetWithH
eight:0x1f095f050]
99393 ms      | | | | | | -[AAUISignInViewController _setUsernameCellWaiting:0x1]
99394 ms      | | | | | | -[AAUISignInViewController _showOnlyPassword]
99396 ms      | | | | | -[AAUISignInController willAuthenticateWithContext:0x10410b85
0]

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99396 ms | | | +[AAPersonaUtility verifyAndFixPersonaIfNeeded:0x2807395c0 de
siredContext:0x281025010]
99396 ms | | | -[AKAppleIDAuthenticationController init]
99396 ms | | | | -[AKAppleIDAuthenticationController initWithIdentifier:0
x0 daemonXPCEndpoint:0x0]
99396 ms | | | | | -[AKAppleIDAuthenticationContextManager initWithAut
henticationController:0x280739600]
99396 ms | | | | | -[AKAppleIDAuthenticationController authenticateWithContext:0
x10410b850 completion:0x16fd69010]
99397 ms | | | | | | -[AKAppleIDAuthenticationContext authenticationType]
99397 ms | | | | | | -[AKAppleIDAuthenticationContext _proxiedAppBundleID]
99397 ms | | | | | | -[AKAppleIDAuthenticationContextManager registerContext:
0x10410b850]
99397 ms | | | | | | | -[AKAppleIDAuthenticationContext _identifier]
99397 ms | | | | | | | -[AKAppleIDAuthenticationContext debugDescription]
99397 ms | | | | | | | | -[AKAppleIDAuthenticationContext _shouldSkipInitial
ReachabilityCheck]
/* TID 0xc533 */
99397 ms | | | | | | | | -[AKAppleIDAuthenticationContext _identifier]
/* TID 0x103 */
99397 ms | | | | | | | | | -[AKAppleIDAuthenticationController _authenticationServ
iceConnection]
99397 ms | | | | | | | | | | +[AKAppleIDAuthenticationDaemonInterface XPCInterfa
ce]
99397 ms | | | | | | | | | | +[AKAppleIDAuthenticationClientInterface XPCInterfa
ce]
99397 ms | | | | | | | | | | | -[AKAppleIDAuthenticationContext _sanitizedCopy]
99398 ms | | | | | | | | | | | | -[AKAppleIDAuthenticationContext init]
99398 ms | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext _initWithiden
tifier:0x28164e340]
99398 ms | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext description]
99398 ms | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext _capabilityForUIDi
splay]
99398 ms | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext _shouldSkipInitial
ReachabilityCheck]
99398 ms | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext isContextEligibleForSil
entAuth]
99398 ms | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext authenticationType
]
99398 ms | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext shouldPromptForPas
swordOnly]
99398 ms | | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext isEphemeral]
99398 ms | | | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext isUsernameEditable
]
99398 ms | | | | | | | | | | | | | | | | | | | | | -[AKAppleIDAuthenticationContext encodeWithCoder:0x11383
a600]
99399 ms | | | | | | | | | | | | | | | | | | | | +[AAPersonaUtility personaConsistencyCheck:0x2807395c0]
99399 ms | | | | | | | | | | | | | | | | | | | | | -[AAUISignInViewController _prewarmSignInFlowIfApplicable]
99399 ms | | | | | | | | | | | | | | | | | | | | | | -[AAUISignInViewController showServiceIcons]
99399 ms | | | | | | | | | | | | | | | | | | | | | | | -[AASignInFlowController init]
99399 ms | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountStore init]
99399 ms | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountStore initWithRemoteEndpoint:0x0 effectiveBun
dleID:0x0]
99399 ms | | | | | | | | | | | | | | | | | | | | | | | | | | +[ACTimedExpirer expirerWithTimeout:0x1e]
99399 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACTimedExpirer init]
99399 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | +[ACTimedExpirer expirerWithTimeout:0x1e]

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99399 ms | | | | | | | -[ACTimedExpirer init]
99399 ms | | | | | | +[ACNotificationRebroadcaster sharedRebroadcaster]
99400 ms | | | -[AASignInFlowController prewarmOperationsWithCompletion:0x0]
99400 ms | | | | +[AARemoteServer sharedServer]
99400 ms | | | | | -[AARemoteServer init]
99400 ms | | | | | | +[AAURLSession sharedSession]
99400 ms | | | | | | | -[AAURLSession _initRequiringSigning:0x0]
99402 ms | | | | | | | | -[AAURLSessionContext initRequiringSignin
g:0x0]
99402 ms | | | | | | | | | -[AKAppleIDSession initWithIdentifie
r:0x28164e980]
99402 ms | | | | | | | | | | -[AAURLSessionContext _initRequiring
Signing:0x0 appleIDSession:0x2807e81c0]
99405 ms | | | | | | | | | | | -[AKAppleIDSession initWithIdentifier:0x2
81cc6fa0]
99405 ms | | | | | | | | | | | | -[AAURLSessionContext _initRequiringSigni
ng:0x0 appleIDSession:0x280767d40]
99405 ms | | | | | | | | | | | | | -[AKAppleIDSession initWithIdentifier:0x2
81cc6fa0]
99405 ms | | | | | | | | | | | | | | -[AAURLSessionContext _initRequiringSigni
ng:0x0 appleIDSession:0x280762940]
99406 ms | | | | | | | | | | | | | | | -[AAURLSessionContext relevantHTTPStatusC
odes]
99406 ms | | | | | | | | | | | | | | | | -[AKAppleIDSession relevantHTTPStatu
sCodes]
99406 ms | | | | | | | | | | | | | | | | | +[AAURLSessionContext _relevantHTTPS
tatusCodes]
99406 ms | | | | | | | | | | | | | | | | | | +[AAURLSession sharedSigningSession]
99406 ms | | | | | | | | | | | | | | | | | | | -[AAURLSession _initRequiringSigning:0x1]
99406 ms | | | | | | | | | | | | | | | | | | | | -[AAURLSessionContext initRequiringSignin
g:0x1]
99406 ms | | | | | | | | | | | | | | | | | | | | | -[AKAppleIDSession initWithIdentifie
r:0x28164ed40]
99406 ms | | | | | | | | | | | | | | | | | | | | | | -[AAURLSessionContext _initRequiring
Signing:0x1 appleIDSession:0x2807e81c0]
99406 ms | | | | | | | | | | | | | | | | | | | | | | | -[AKAppleIDSession initWithIdentifier:0x2
81cc6e50]
99406 ms | | | | | | | | | | | | | | | | | | | | | | | | -[AAURLSessionContext _initRequiringSigni
ng:0x1 appleIDSession:0x2807e8580]
99407 ms | | | | | | | | | | | | | | | | | | | | | | | | -[AKAppleIDSession initWithIdentifier:0x2
81cc6e50]
99407 ms | | | | | | | | | | | | | | | | | | | | | | | | | -[AAURLSessionContext _initRequiringSigni
ng:0x1 appleIDSession:0x2807e8fc0]
99407 ms | | | | | | | | | | | | | | | | | | | | | | | | | | -[AAURLSessionContext relevantHTTPStatusC
odes]
99407 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | -[AKAppleIDSession relevantHTTPStatu
sCodes]
99407 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | +[AAURLSessionContext _relevantHTTPS
tatusCodes]
99407 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[AARemoteServer configurationWithCompletion:0x16fd690b8]
99407 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[AARemoteServer _configurationAndResponseWithCompletion
:0x16fd69058]
99407 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[AARemoteServer _configurationCacheInvalidateingIfN
ecessary]
99407 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[AARemoteServer _configurationLock_configurat
ionCacheInvalidateingIfNecessary]

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    /* TID 0xc533 */
99407 ms - [AARemoteServer _configurationCacheInvalidatingIfNecessary]
99407 ms | - [AARemoteServer _configurationLock_configurationCacheInvalidatingIfNec
essary]
99407 ms - [AARemoteServer _fetchConfigurationAndResponseWithCompletion:0x16fe7e890]
/* TID 0x103 */
99408 ms - [ACTimedExpirer _cancelTimer]
99408 ms | - [ACTimedExpirer _unsafeCancelTimer]
99408 ms - [ACTimedExpirer _cancelTimer]
99408 ms | - [ACTimedExpirer _unsafeCancelTimer]
/* TID 0xf107 */
99423 ms +[AKAppleIDAuthenticationContext supportsSecureCoding]
99423 ms - [AKAppleIDAuthenticationContextManager presentBasicLoginUIForContext:0x1203
2b360 completion:0x2820ba370]
99423 ms | - [AKAppleIDAuthenticationContextManager _clientSideContextForServerCont
ext:0x12032b360]
99423 ms | | - [AKAppleIDAuthenticationContext _identifier]
99423 ms | | - [AKAppleIDAuthenticationContext _identifier]
99423 ms | | - [AKAppleIDAuthenticationContext _updateWithValuesFromContext:0x12
032b360]
99423 ms | - [AKAppleIDAuthenticationInAppContext presentBasicLoginUIWithCompletion
:0x2820ba370]
/* TID 0x103 */
99423 ms - [AKAppleIDAuthenticationContext username]
99423 ms - [AKAppleIDAuthenticationInAppContext _passwordDelegate]
99424 ms - [AKAppleIDAuthenticationContext username]
99424 ms - [AKAppleIDAuthenticationInAppContext _passwordDelegate]
99424 ms - [AAUISignInViewController context:0x10410b850 needsPasswordWithCompletion:0
x16fd6a950]
99424 ms | - [AAUISignInViewController _setPasswordFieldHidden:0x0]
99424 ms | | - [AAUISignInViewController _isPasswordFieldVisible]
99424 ms | | | - [AAUISignInViewController _showOnlyPassword]
99424 ms | | | - [AAUISignInViewController _passwordFieldIndexPath]
99424 ms | | | - [AAUISignInViewController _showOnlyPassword]
99425 ms | | | - [AAUISignInViewController _passwordFieldIndexPath]
99425 ms | | | - [AAUISignInViewController _passwordCell]
99435 ms | - [AAUISignInViewController _setEnabled:0x1]
99435 ms | | - [AAUISignInViewController _hasValidCredentials]
99436 ms | | | - [AAUISignInViewController _setUsernameCellWaiting:0x0]
/* TID 0xc533 */
99454 ms | - [AAURLSession bodyTaskWithRequest:0x28100b030 completion:0x16fe7e740]
99454 ms | | - [AAURLSession dataTaskWithRequest:0x28100b030 completion:0x16fe7e
6c8]
99454 ms | | | - [AAURLSession _enqueueRequest:0x28100b030 completion:0x16fe7
e6c8]
99455 ms | | | | - [AKAppleIDSession initWithIdentifier:0x281cc6fa0]
99455 ms | | | | - [AAURLSessionContext _initRequiringSigning:0x0 appleIDS
ession:0x2807dddc0]
/* TID 0x10a03 */
99455 ms - [AAURLSession _sessionQueue_enqueueTask:0x129612b80 completion:0x281d62b80]
99469 ms - [AAURLSession URLSession:0x10401f340 dataTask:0x129612b80 didReceiveData:0x
2807d4a00]
99469 ms | - [AAURLSession _sessionQueue_updateTask:0x129612b80WithData:0x2807d4a0
0]
/* TID 0xc533 */
99470 ms - [AAURLSession URLSession:0x10401f340 task:0x129612b80 didCompleteWithError:

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0x0]
99470 ms      | -[AAURLSession _sessionQueue_dequeueTask:0x129612b80 withResponse:0x281
6bae20 error:0x0]
99470 ms      |     | -[AAURLConfiguration _initWithDictionary:0x2816a15c0]
99470 ms      |     | +[AARemoteServerConfigurationCache cacheWithConfiguration:0x28100c
250 response:0x2816bae20]
99470 ms      |     |     | -[AARemoteServerConfigurationCache initWithConfiguration:0x28
100c250 response:0x2816bae20]
99470 ms      |     |     | -[AARemoteServer _setConfigurationCache:0x2816bb620]
99470 ms      |     |     | -[AAURLConfiguration absintheEnable]
99470 ms      |     |     | +[AAAbsintheSigner sharedSigner]
99470 ms      |     |     |     | -[AAABsintheSigner initWithCacheTimeout:0xfffffffffffffff0]
99470 ms      |     |     |     | +[AAURLSession sharedSession]
99470 ms      |     |     | -[AAABsintheSigner signatureForData:0x281d70f90 completion:0x16fe7
e370]
99470 ms      |     |     |     | -[AAABsintheSigner _contextWithCompletion:0x16fe7e2b0]
99470 ms      |     |     |     |     | -[AAABsintheSigner context]
99470 ms      |     |     |     |     | -[AAABsintheSigner _contextLock_contextInvalidating
IfNecessary]
99470 ms      |     |     | -[AAURLConfiguration baaInterval]
/* TID 0x10a03 */
99470 ms      -[AAABsintheSigner _contextQueue_contextWithCompletion:0x281d71410]
99471 ms      | -[AAABsintheSigner context]
99471 ms      |     | -[AAABsintheSigner _contextLock_contextInvalidatingIfNecessary]
99471 ms      | -[AAABsintheSigner _fetchCertificateDataWithCompletion:0x1703f6808]
99471 ms      |     | -[AAURLSession dataTaskWithURL:0x28318bcf0 completion:0x1703f67a8]
99471 ms      |     |     | -[AAURLSession dataTaskWithRequest:0x28100b070 completion:0x1
703f67a8]
99471 ms      |     |     |     | -[AAURLSession _enqueueRequest:0x28100b070 completion:0x
1703f67a8]
99471 ms      |     |     |     |     | -[AKAppleIDSession initWithIdentifier:0x281cc6fa0]
99471 ms      |     |     |     |     | -[AAURLSessionContext _initRequiringSigning:0x0 app
leIDSession:0x2807ddd80]
/* TID 0xc533 */
99471 ms      -[AAURLSession _sessionQueue_enqueueTask:0x1006ee7e0 completion:0x281d62ac0]
/* TID 0x10a03 */
99471 ms      +[AAURLProtocol canInitWithRequest:0x281008040]
99471 ms      +[AAURLProtocol canonicalRequestForRequest:0x281008040]
/* TID 0x873f */
99472 ms      -[AAURLProtocol initWithRequest:0x281008010 cachedResponse:0x0 client:0x281d
70960]
99472 ms      -[AAURLProtocol startLoading]
99472 ms      | +[AARemoteServer sharedServer]
99472 ms      | -[AARemoteServer _configurationAndResponseWithCompletion:0x17050da48]
99472 ms      |     | -[AARemoteServer _configurationCacheInvalidatingIfNecessary]
99472 ms      |     |     | -[AARemoteServer _configurationLock_configurationCacheInvalid
atingIfNecessary]
99472 ms      |     |     |     | -[AARemoteServerConfigurationCache creationDate]
99472 ms      |     |     |     | -[AARemoteServerConfigurationCache configuration]
99472 ms      |     |     |     | -[AARemoteServerConfigurationCache response]
99472 ms      |     |     |     | -[AAURLConfiguration urlForEndpoint:0x2816bb260]
99472 ms      -[AAURLProtocol stopLoading]
/* TID 0x10a03 */
99481 ms      -[AAURLSessionContext URLSession:0x10401f340 task:0x1006ee7e0 getAppleIDHea
dersForResponse:0x0 completionHandler:0x1703f6650]
99481 ms      | -[AKAppleIDSession URLSession:0x10401f340 task:0x120360620 getAppleIDHe

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adersForResponse:0x0 completionHandler:0x1703f65c0]
99481 ms | | -[AKAppleIDSession _generateAppleIDHeadersForSessionTask:0x1203606
20 withCompletion:0x1703f6538]
99481 ms | | | -[AKAppleIDSession _nativeAnisetteController]
99481 ms | | | | -[AKAnisetteProvisioningController init]
99481 ms | | | | -[AKAnisetteProvisioningController anisetteDataForURLRequest:
0x28100c0d0 completion:0x1703f6428]
99481 ms | | | | | -[AKAnisetteProvisioningController fetchAnisetteDataAndP
rovisionIfNecessary:0x1 withCompletion:0x1703f6428]
99481 ms | | | | | | -[AKAnisetteProvisioningController _anisetteService
Connection]
99481 ms | | | | | | | +[AKAnisetteProvisioningDaemonInterface XPCInt
erface]
99481 ms | | | | | | | +[AKAnisetteProvisioningClientInterface XPCInt
erface]

/* TID 0x6f1f */
99500 ms +[AKAnisetteData supportsSecureCoding]
99500 ms -[AKAppleIDSession _genericAppleIDHeadersDictionaryForRequest:0x28100c0d0]
99502 ms | +[AKDevice currentDevice]
99502 ms | | -[AKDevice init]
99502 ms | | | -[AKDevice _setShouldUpdateToValue:0x0]
99502 ms | | | -[AKDevice description]
99502 ms | | | -[AKDevice setLinkType:0x1]
99502 ms | | | -[AKDevice _setShouldUpdateToValue:0x1]
99503 ms | -[AKDevice locale]
99503 ms -[AKAnisetteData machineID]
99503 ms -[AKAnisetteData oneTimePassword]
99503 ms -[AKAnisetteData routingInfo]
99503 ms +[AKDevice currentDevice]
99503 ms -[AKDevice localUserUUID]
99503 ms +[AKConfiguration sharedConfiguration]
99503 ms | -[AKConfiguration init]
99504 ms -[AKConfiguration shouldAllowTestApplication]
99504 ms | -[AKConfiguration configurationValueForKey:0x1e8b17ff8]
99504 ms -[AKAppleIDSession _pairedDeviceAnisetteController]
99504 ms -[AAURLSessionContext _additionalHeadersForRequest:0x28100c260 completion:0x
16fdf2270]
99504 ms | +[AADeviceInfo currentInfo]
/* TID 0x1517 */
99504 ms +[NSError _web_errorWithDomain:0x1f61f0440 code:0xfffffffffffffff19 URL:0x283
ceb000]
99504 ms | -[NSError _web_initWithDomain_nowarn:0x1f61f0440 code:0xfffffffffffffff1
9 URL:0x283ceb000]
99508 ms | | -[NSError initWithDomain:0x1f61f0440 code:0xfffffffffffffff19 userI
nfo:0x2816bbb20]
99508 ms -[NSError userInfo]
99508 ms -[NSError domain]
99508 ms -[NSError code]
99508 ms -[NSError domain]
99508 ms -[NSError code]
99508 ms -[NSError userInfo]
99508 ms -[NSError userInfo]
99508 ms -[NSError domain]
99508 ms -[NSError code]
99508 ms +[NSError errorWithDomain:0x1f61f0440 code:0xfffffffffffffff19 userInfo:0x281
6bffa0]

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99508 ms      | -[NSError initWithDomain:0x1f61f0440 code:0xfffffffffffffc19 userInfo:0
x2816bffa0]
99508 ms      -[NSError code]
99508 ms      -[NSError code]
99508 ms      -[NSError description]
99508 ms      | -[NSError userInfo]
99508 ms      | -[NSError domain]
99508 ms      | -[NSError userInfo]
99508 ms      | -[NSError domain]
99508 ms      | -[NSError userInfo]
99508 ms      | -[NSError userInfo]
99508 ms      | -[NSError domain]
99508 ms      | -[NSError code]
/* TID 0x6f1f */
99511 ms      +[AADeviceInfo clientInfoHeader]
99511 ms      | | -[AADeviceInfo productType]
99511 ms      | | -[AADeviceInfo osName]
99511 ms      | | +[AADeviceInfo osVersion]
99511 ms      | | -[AADeviceInfo buildVersion]
99513 ms      +[AAPreferences isExperimentalModeEnabled]
99513 ms      | +[AADeviceInfo isInternalBuild]
99513 ms      | -[AAURLSessionContext requiresSigning]
/* TID 0x103 */
99780 ms      +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
99780 ms      | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
99780 ms      +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
99780 ms      | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
99794 ms      +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
99794 ms      | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
99797 ms      -[AAUISignInViewController _keyboardWillShow:0x28169c800]
99797 ms      | -[AAUISignInViewController _updateContentInsetWithHeight:0x1f095f050]
99797 ms      -[AAUISignInViewController _keyboardWillShow:0x28169c800]
99797 ms      | -[AAUISignInViewController _updateContentInsetWithHeight:0x1f095f050]
100321 ms      +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
100321 ms      | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
/* TID 0x10a03 */
100579 ms      -[AAURLSession URLSession:0x10401f340 dataTask:0x1006ee7e0 didReceiveData:0x
280701280]
100580 ms      | -[AAURLSession _sessionQueue_updateTask:0x1006ee7e0 withData:0x28070128
0]
100581 ms      -[AAURLSession URLSession:0x10401f340 task:0x1006ee7e0 didCompleteWithError:
0x0]
100581 ms      | -[AAURLSession _sessionQueue_dequeueTask:0x1006ee7e0 withResponse:0x281
65acc0 error:0x0]
100581 ms      | | +[AAAbsintheSigner _contextCreationBlock]
100581 ms      | | -[AAAbsintheContext init]
100582 ms      | | -[AAAbsintheContext TgBfo02wtF5L:0x101068e00 error:0x1703f6518]
100651 ms      | | -[AAAbsintheSigner _fetchSessionInfoWithRequestInfo:0x28169c3e0 co
mpletion:0x1703f64e8]
100652 ms      | | | -[AAURLSession bodyTaskWithRequest:0x28100c480 completion:0x1
703f64e8]
100652 ms      | | | | -[AAURLSession dataTaskWithRequest:0x28100c480 completio
n:0x1703f63f8]
100652 ms      | | | | | -[AAURLSession _enqueueRequest:0x28100c480 completi
on:0x1703f63f8]
100652 ms      | | | | | | -[AKAppleIDSession initWithIdentifier:0x281cc6

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fao]
100652 ms      |      |      |      |      | -[AAURLSessionContext _initRequiringSigning:0x
0 appleIDSession:0x2807d7340]
100652 ms      -[AAURLSession _sessionQueue_enqueueTask:0x1203690e0 completion:0x281d751d0]
/* TID 0x6f1f */
100652 ms      +[AAURLProtocol canInitWithRequest:0x281008710]
100652 ms      +[AAURLProtocol canonicalRequestForRequest:0x281008710]
/* TID 0x873f */
100652 ms      -[AAURLProtocol initWithRequest:0x281009ad0 cachedResponse:0x0 client:0x281d
060d0]
100652 ms      -[AAURLProtocol startLoading]
100652 ms          | +[AARemoteServer sharedServer]
100652 ms          | -[AARemoteServer _configurationAndResponseWithCompletion:0x17050da48]
100652 ms          |     | -[AARemoteServer _configurationCacheInvalidatingIfNecessary]
100652 ms          |     |     | -[AARemoteServer _configurationLock_configurationCacheInvalid
atingIfNecessary]
100652 ms          |     |     | -[AARemoteServerConfigurationCache creationDate]
100652 ms          |     |     | -[AARemoteServerConfigurationCache configuration]
100652 ms          |     |     | -[AARemoteServerConfigurationCache response]
100652 ms          |     |     | -[AAURLConfiguration urlForEndpoint:0x281690140]
100652 ms      -[AAURLProtocol stopLoading]
/* TID 0x1517 */
100653 ms      -[AAURLSessionContext URLSession:0x10401f340 task:0x1203690e0 getAppleIDHe
dersForResponse:0x0 completionHandler:0x170482650]
100653 ms          | -[AKAppleIDSession URLSession:0x10401f340 task:0x129628bd0 getAppleIDHe
dersForResponse:0x0 completionHandler:0x1704825c0]
100653 ms          |     | -[AKAppleIDSession _generateAppleIDHeadersForSessionTask:0x129628b
d0 withCompletion:0x170482538]
100653 ms          |     |     | -[AKAppleIDSession _nativeAnisetteController]
100653 ms          |     |     |     | -[AKAnisetteProvisioningController init]
100653 ms          |     |     |     | -[AKAnisetteProvisioningController anisetteDataForURLRequest:
0x281008810 completion:0x170482428]
100653 ms          |     |     |     | -[AKAnisetteProvisioningController fetchAnisetteDataAndP
rovisionIfNecessary:0x1 withCompletion:0x170482428]
100653 ms          |     |     |     |     | -[AKAnisetteProvisioningController _anisetteService
Connection]
100653 ms          |     |     |     |     | +[AKAnisetteProvisioningDaemonInterface XPCInt
erface]
100653 ms          |     |     |     |     | +[AKAnisetteProvisioningClientInterface XPCInt
erface]
/* TID 0x6f1f */
100657 ms      +[AKAnisetteData supportsSecureCoding]
100657 ms      -[AKAppleIDSession _genericAppleIDHeadersDictionaryForRequest:0x281008810]
100657 ms          | +[AKDevice currentDevice]
100657 ms          | -[AKDevice locale]
100657 ms      -[AKAnisetteData machineID]
100657 ms      -[AKAnisetteData oneTimePassword]
100657 ms      -[AKAnisetteData routingInfo]
100657 ms      +[AKDevice currentDevice]
100657 ms      -[AKDevice localUserUUID]
100657 ms      +[AKConfiguration sharedConfiguration]
100657 ms      -[AKConfiguration shouldAllowTestApplication]
100657 ms          | -[AKConfiguration configurationValueForKey:0x1e8b17ff8]
100657 ms      -[AKAppleIDSession _pairedDeviceAnisetteController]
100657 ms      -[AAURLSessionContext _additionalHeadersForRequest:0x281008640 completion:0x
16fdf2270]

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100657 ms      | -[AAURLConnection requiresSigning]
                  /* TID 0x1517 */
100657 ms      +[NSError _web_errorWithDomain:0x1f61f0440 code:0xfffffffffffffff19 URL:0x283
98c0e0]
100657 ms      | -[NSError _web_initWithDomain_nowarn:0x1f61f0440 code:0xfffffffffffffff19 URL:0x28398c0e0]
100657 ms      |     | -[NSError initWithDomain:0x1f61f0440 code:0xfffffffffffffff19 userInfo:0x28169c340]
100657 ms      -[NSError userInfo]
100658 ms      -[NSError domain]
100658 ms      -[NSError code]
100658 ms      -[NSError domain]
100658 ms      -[NSError code]
100658 ms      -[NSError userInfo]
100658 ms      -[NSError userInfo]
100658 ms      -[NSError domain]
100658 ms      -[NSError code]
100658 ms      +[NSError errorWithDomain:0x1f61f0440 code:0xfffffffffffffff19 userInfo:0x281
69c7a0]
100658 ms      | -[NSError initWithDomain:0x1f61f0440 code:0xfffffffffffffff19 userInfo:0
x28169c7a0]
100658 ms      -[NSError code]
100658 ms      -[NSError code]
100658 ms      -[NSError description]
100658 ms      | -[NSError userInfo]
100658 ms      | -[NSError domain]
100658 ms      | -[NSError userInfo]
100658 ms      | -[NSError domain]
100658 ms      | -[NSError userInfo]
100658 ms      | -[NSError userInfo]
100658 ms      | -[NSError domain]
100658 ms      | -[NSError code]
/* TID 0x103 */
100683 ms      +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
100683 ms      | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
100684 ms      +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
100684 ms      | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
/* TID 0x1517 */
100849 ms      -[AAURLConnection URLSession:0x10401f340 dataTask:0x1203690e0 didReceiveData:0x
28073adc0]
100849 ms      | -[AAURLConnection _sessionQueue_updateTask:0x1203690e0 withData:0x28073adc
0]
/* TID 0x6f1f */
100850 ms      -[AAURLConnection URLSession:0x10401f340 task:0x1203690e0 didCompleteWithError:
0x0]
100850 ms      | -[AAURLConnection _sessionQueue_dequeueTask:0x1203690e0 withResponse:0x281
658520 error:0x0]
100850 ms      |     | -[AAABsintheContext R6XtwiyjL3q2:0x2816470e0 error:0x16fdf24c8]
100856 ms      |     | -[AAABsintheSigner setContext:0x281025c00]
100856 ms      |     |     | +[AAABsintheSignerContextCache cacheWithContext:0x281025c00]
100856 ms      |     |     | -[AAABsintheSignerContextCache initWithContext:0x281025c
00]
100856 ms      |     |     | -[AAABsintheSigner _contextLock_enqueueContextCleanup]
100856 ms      |     |     |     | -[AAABsintheSigner cacheTimeout]
100857 ms      |     | -[AAABsintheContext cao1NI5PNJBn:0x281d70f90 error:0x16fdf23f8]
/* TID 0x103 */

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101013 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
101013 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
101015 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
101015 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
101609 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0x0 replacementString:0x0]
101617 ms -[AAUISignInViewController _textFieldDidChange:0x2816be1e0]
101617 ms | -[AAUISignInViewController _isValidCredentials]
102121 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
102122 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
102124 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
102124 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
102577 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0x1 replacementString:0x0]
102588 ms -[AAUISignInViewController _textFieldDidChange:0x28164f8e0]
102588 ms | -[AAUISignInViewController _isValidCredentials]
102924 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
102924 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
102926 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
102926 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
103292 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
103293 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
103294 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
103294 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
103991 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0x2 replacementString:0x0]
104004 ms -[AAUISignInViewController _textFieldDidChange:0x2816b0640]
104004 ms | -[AAUISignInViewController _isValidCredentials]
104028 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
104028 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
104030 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
104030 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
104474 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0x3 replacementString:0x0]
104488 ms -[AAUISignInViewController _textFieldDidChange:0x2812fe3e0]
104488 ms | -[AAUISignInViewController _isValidCredentials]
104974 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0x4 replacementString:0x0]
104988 ms -[AAUISignInViewController _textFieldDidChange:0x28125e020]
104988 ms | -[AAUISignInViewController _isValidCredentials]
105393 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0x5 replacementString:0x0]
105406 ms -[AAUISignInViewController _textFieldDidChange:0x2812638e0]
105406 ms | -[AAUISignInViewController _isValidCredentials]
105674 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0x6 replacementString:0x0]
105686 ms -[AAUISignInViewController _textFieldDidChange:0x28165aa40]
105686 ms | -[AAUISignInViewController _isValidCredentials]
105907 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0x7 replacementString:0x0]
105920 ms -[AAUISignInViewController _textFieldDidChange:0x28125eb60]
105920 ms | -[AAUISignInViewController _isValidCredentials]
106173 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0x8 replacementString:0x0]
106186 ms -[AAUISignInViewController _textFieldDidChange:0x2812631c0]
106186 ms | -[AAUISignInViewController _isValidCredentials]

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106490 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0x9 replacementString:0x0]
106504 ms -[AAUISignInViewController _textFieldDidChange:0x28125e300]
106505 ms | -[AAUISignInViewController _isValidCredentials]
106858 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
106858 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
106860 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
106860 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
107456 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0xa replacementString:0x0]
107470 ms -[AAUISignInViewController _textFieldDidChange:0x2816b2fa0]
107470 ms | -[AAUISignInViewController _isValidCredentials]
107773 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
107773 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
107775 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
107775 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
108325 ms -[AAUISignInViewController textField:0x10186c200 shouldChangeCharactersInRange:0xb replacementString:0x0]
108339 ms -[AAUISignInViewController _textFieldDidChange:0x2816a8640]
108339 ms | -[AAUISignInViewController _isValidCredentials]
109055 ms -[AAUISignInViewController _nextButtonSelected:0x10067b1a0]
109055 ms | -[AAUISignInViewController _attemptAuthentication]
109055 ms | | -[AAUISignInViewController _setEnabled:0x0]
109078 ms | | | -[AAUISignInViewController _keyboardWillShow:0x2816a8240]
109078 ms | | | | -[AAUISignInViewController _updateContentInsetWithHeight:0x1f095f050]
109079 ms | | | | -[AAUISignInViewController _keyboardWillHide:0x28169c3e0]
109079 ms | | | | -[AAUISignInViewController _updateContentInsetWithHeight:0x1f095f050]
109081 ms | | | | -[AAUISignInViewController _setUsernameCellWaiting:0x1]
109081 ms | | | | | -[AAUISignInViewController _showOnlyPassword]
109081 ms | | -[AAUISignInViewController _prewarmSignInFlowIfApplicable]
109081 ms | | | -[AAUISignInViewController showServiceIcons]
109081 ms | | | -[AASignInFlowController init]
109081 ms | | | | -[ACAccountStore init]
109081 ms | | | | | -[ACAccountStore initWithRemoteEndpoint:0x0 effectiveBundleID:0x0]
109081 ms | | | | | | +[ACTimedExpirer expirerWithTimeout:0xe]
109081 ms | | | | | | | -[ACTimedExpirer init]
109081 ms | | | | | | | +[ACTimedExpirer expirerWithTimeout:0xe]
109081 ms | | | | | | | | -[ACTimedExpirer init]
109081 ms | | | | | | | | +[ACNotificationRebroadcaster sharedRebroadcaster]
109081 ms | | | | | | -[AASignInFlowController prewarmOperationsWithCompletion:0x0]
109081 ms | | | | | | | +[AARemoteServer sharedServer]
109081 ms | | | | | | | -[AARemoteServer configurationWithCompletion:0x16fd690b8]
109081 ms | | | | | | | -[AARemoteServer _configurationAndResponseWithCompletion:0x16fd69058]
109081 ms | | | | | | | -[AARemoteServer _configurationCacheInvalidateingIfNecessary]
109081 ms | | | | | | | | -[AARemoteServer _configurationLock_configurationCacheInvalidateingIfNecessary]
109081 ms | | | | | | | | | -[AARemoteServerConfigurationCache createOnDate]
109081 ms | | | | | | | | | -[AARemoteServerConfigurationCache configuration]
109081 ms | | | | | | | | | -[AARemoteServerConfigurationCache response]
109081 ms | | | | | | | | | -[AAURLConfiguration absintheEnable]

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109081 ms | | | | | +[AAAbsintheSigner sharedSigner]
109081 ms | | | | | -[AAAbsintheSigner signatureForData:0x281d763d0 com
pletion:0x16fd68e80]
109081 ms | | | | | -[AAAbsintheSigner _contextWithCompletion:0x16
fd68dc0]
109081 ms | | | | | | | -[AAAbsintheSigner context]
109081 ms | | | | | | | -[AAAbsintheSigner _contextLock_cont
extInvalidatingIfNecessary]
109081 ms | | | | | | | | | -[AAAbsintheSignerContextCache
creationDate]
109082 ms | | | | | | | | | -[AAAbsintheSignerContextCache
context]
109082 ms | | | | | | | | | -[AAAbsintheContext cao1NI5PNJBn:0x281d76
3d0 error:0x16fd68d08]
109085 ms | | | | | | | -[AAURLConfiguration baaInterval]
109085 ms | -[ACTimedExpirer _cancelTimer]
109085 ms | | -[ACTimedExpirer _unsafeCancelTimer]
109085 ms | -[ACTimedExpirer _cancelTimer]
109085 ms | | -[ACTimedExpirer _unsafeCancelTimer]
109602 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
109602 ms | | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
/* TID 0x6f1f */
110997 ms | -[AKAppleIDAuthenticationContextManager shouldContinueWithAuthenticationResu
lts:0x2816b3020 error:0x0 forContextID:0x2816b3500 completion:0x283925d50]
110998 ms | | -[AKAppleIDAuthenticationContextManager delegate]
/* TID 0x103 */
111116 ms | -[ACNotificationRebroadcaster _accountStoreDidChange:0x281d75080]
111117 ms | -[ACAccountStore visibleTopLevelAccountsWithAccountTypeIdentifiers:0x283c263
00 completion:0x16fd69d98]
111117 ms | | -[ACAccountStore remoteAccountStoreSession]
111117 ms | | | -[ACAccountStore connectionDelegate]
111117 ms | | | -[ACRemoteAccountStoreSession initWithListenerEndpoint:0x0 delegat
e:0x0]
111117 ms | | | | -[ACAccountStoreClientSideListener initWithDelegate:0x0]
111117 ms | | | | -[ACAccountStore effectiveBundleID]
111117 ms | | | | -[ACRemoteAccountStoreSession setEffectiveBundleID:0x0]
111117 ms | | | | -[ACTimedExpirer scheduleExpiration:0x16fd69b90]
111117 ms | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111117 ms | | | | -[ACRemoteAccountStoreSession remoteObjectProxyWithErrorHandler:0x16fd6
9b70]
111117 ms | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0x6f1f */
111117 ms | -[ACAccountStore dmc_visibleRemoteManagementAccounts]
/* TID 0x103 */
111117 ms | | | | -[ACTrackedXPCCConnection init]
111117 ms | | | | +[ACRemoteAccountStoreInterface XPCInterface]
111118 ms | | | | -[ACRemoteAccountStoreSession _locked_configureRemoteAccounts
toreWithConnection:0x282340820]
111119 ms | -[AMSAccountsChangedObservable _accountStoreDidChange:0x281659980]
111119 ms | | +[AMSLogConfig sharedAccountsConfig]
111119 ms | | -[AMSLogConfig OSLogObject]
111119 ms | | | -[AMSLogConfig propertyAccessQueue]
111119 ms | | | -[AMSLogConfig backingOSLogObject]
/* TID 0x6f1f */
111119 ms | | -[ACAccountStore dmc_RemoteManagementAccounts]
111119 ms | | | -[ACAccountStore dmc_RemoteManagementAccountType]

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111119 ms | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x1e741
8c58]
111119 ms | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x
1e7418c58 error:0x0]
111119 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
111120 ms | | | | | | -[ACAccountStore connectionDelegate]
111120 ms | | | | | | -[ACRemoteAccountStoreSession initWithListener
Endpoint:0x0 delegate:0x0]
111120 ms | | | | | | | -[ACAccountStoreClientSideListener initWi
thDelegate:0x0]
111120 ms | | | | | | | | -[ACAccountStore effectiveBundleID]
111120 ms | | | | | | | | -[ACRemoteAccountStoreSession setEffectiveBund
leID:0x0]
    /* TID 0xc533 */
111120 ms -[AACloudServiceOwner accountForService:0x1ecb2df10]
111120 ms | +[AACloudServiceOwner _serviceTypeForPlatform]
111120 ms | -[ACAccountStore aa_primaryAppleAccount]
111120 ms | | -[ACAccountStore accountsWithAccountTypeIdentifiers:0x28100d400 pr
eloadedProperties:0x0 error:0x0]
111120 ms | | | | -[ACAccountStore remoteAccountStoreSession]
    /* TID 0x6f1f */
111121 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x16fdf24c
0]
111121 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111121 ms | | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x16fdf24a0]
111121 ms | | | | | | | | -[ACRemoteAccountStoreSession _connection]
111121 ms | | | | | | | | | -[ACTrackedXPCCConnection init]
    /* TID 0xc533 */
111121 ms | | | | | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e410]
111121 ms | | | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111121 ms | | | | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxywit
hErrorHandler:0x16fe7e3f0]
111121 ms | | | | | | | | | | -[ACRemoteAccountStoreSession _connection]
    /* TID 0x6f1f */
111121 ms | | | | | | | | | | | +[ACRemoteAccountStoreInterface XPCInterf
ace]
111121 ms | | | | | | | | | | | | -[ACRemoteAccountStoreSession _locked_con
figureRemoteAccountStoreWithConnection:0x282342080]
    /* TID 0xc533 */
111139 ms +[ACAccountStore ams_sharedAccountStoreForMediaType:0x1e77eaeb0]
111139 ms | +[AMSUnitTests isRunningUnitTests]
    /* TID 0x6f1f */
111146 ms | | | | | | | | | | | | +[ACAccountType supportsSecureCoding]
    /* TID 0xc533 */
111147 ms | | | | | | | | | | | | | +[ACAccountStore defaultStore]
    /* TID 0x6f1f */
111147 ms | | | | | | | | | | | | | | -[ACAccountType setAccountStore:0x283916df0]
111147 ms | | | | | | | | | | | | | | -[ACAccountType description]
111147 ms | | | | | | | | | | | | | | | -[ACAccountType accountTypeDescription]
111147 ms | | | | | | | | | | | | | | | | -[ACAccountType identifier]
    /* TID 0xc533 */
111148 ms -[ACAccountStore ams_activeiTunesAccount]
111148 ms | | -[ACAccountStore ams_mediaType]
111148 ms | | | | +[AMSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
111148 ms | | | | | +[AMSAccountStoreCache cacheAccessQueue]

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111148 ms | | | | +[AMSAccountStoreCache cache]
111148 ms | | | | | +[AMSAccountStoreCache cacheAccessQueue]
/* TID 0x6f1f */
111148 ms | | | -[ACAccountStore accountsWithAccountType:0x2839f4620]
111148 ms | | | | -[ACAccountType description]
111148 ms | | | | | -[ACAccountType accountTypeDescription]
111148 ms | | | | | -[ACAccountType identifier]
111148 ms | | | -[ACAccountStore remoteAccountStoreSession]
111148 ms | | | | -[ACTimedExpirer scheduleExpiration:0x16fdf2470]
111148 ms | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111148 ms | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x16fdf2450]
111148 ms | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xc533 */
111148 ms | | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
/* TID 0x6f1f */
111148 ms | | | | -[ACAccountType encodeWithCoder:0x101a88e00]
111148 ms | | | | | -[ACAccountType identifier]
/* TID 0xc533 */
111148 ms | | | | | +[AMSTests isRunningUnitTests]
111148 ms | | | | | +[AMSProcessInfo defaultMediaTypeAccessQueue]
/* TID 0x6f1f */
111148 ms | | | | | | -[ACAccountType accountTypeDescription]
111148 ms | | | | | | -[ACAccountType objectID]
111149 ms | | | | | | -[ACAccountType visibility]
111149 ms | | | | | | -[ACAccountType credentialProtectionPolicy]
111149 ms | | | | | | -[ACAccountType supportsAuthentication]
111149 ms | | | | | | -[ACAccountType supportsMultipleAccounts]
111149 ms | | | | | | -[ACAccountType owningBundleID]
111149 ms | | | | | | -[ACAccountType isObsolete]
/* TID 0xc533 */
111149 ms | | | -[ACAccountStore ams_iTunesAccounts]
111149 ms | | | | -[ACAccountStore ams_mediaType]
111149 ms | | | | | +[AMSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
111149 ms | | | | | | +[AMSAccountStoreCache cacheAccessQueue]
111149 ms | | | | | | +[AMSAccountStoreCache cache]
111149 ms | | | | | | | +[AMSAccountStoreCache cacheAccessQueue]
111149 ms | | | | | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
111149 ms | | | | | | | | +[AMSTests isRunningUnitTests]
111149 ms | | | | | | | | +[AMSProcessInfo defaultMediaTypeAccessQueue]
111149 ms | | | | | | | | | +[ACAccountStore ams_accountTypeIdentifierForMediaType:0x1e77eaeb0]
]
111149 ms | | | | -[ACAccountStore _ams_accountsWithAccountTypeIdentifier:0x1e7418878 options:0x1 error:0x16fe7e5c8]
111149 ms | | | | | -[ACAccountStore _ams_accountTypeWithAccountTypeIdentifier:0x1e7418878 error:0x16fe7e5c8]
111149 ms | | | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x1e7418878 error:0x16fe7e4e8]
111149 ms | | | | | | | -[ACAccountStore remoteAccountStoreSession]
111149 ms | | | | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e280]
111149 ms | | | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111149 ms | | | | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x16fe7e260]
111149 ms | | | | | | | | | | -[ACRemoteAccountStoreSession _connection]
111152 ms | | | | | | | | | | -[ACAccountType setAccountStore:0x283916df0]

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111152 ms | | | | | -[ACAccountType description]
111152 ms | | | | | | -[ACAccountType accountTypeDescription]
111152 ms | | | | | | -[ACAccountType identifier]
111152 ms | | | -[ACAccountStore _ams_accountsWithAccountType:0x2839f4540 options:0x1 error:0x16fe7e5c8]
111152 ms | | | | -[ACAccountStore accountsWithAccountType:0x2839f4540 options:0x1 error:0x16fe7e548]
111152 ms | | | | | -[ACAccountType description]
111152 ms | | | | | | -[ACAccountType accountTypeDescription]
111152 ms | | | | | | -[ACAccountType identifier]
111152 ms | | | | -[ACAccountStore remoteAccountStoreSession]
111152 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e210]
111152 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111152 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x16fe7e1f0]
111152 ms | | | | | -[ACRemoteAccountStoreSession _connection]
111153 ms | | | | | -[ACAccountType encodeWithCoder:0x101a88e00]
111153 ms | | | | | | -[ACAccountType identifier]
111153 ms | | | | | | -[ACAccountType accountTypeDescription]
111153 ms | | | | | | -[ACAccountType objectID]
111153 ms | | | | | | -[ACAccountType visibility]
111153 ms | | | | | | -[ACAccountType credentialProtectionPolicy]
111153 ms | | | | | | -[ACAccountType supportsAuthentication]
111153 ms | | | | | | -[ACAccountType supportsMultipleAccounts]
111153 ms | | | | | | -[ACAccountType owningBundleID]
111153 ms | | | | | | -[ACAccountType isObsolete]
111163 ms | | | | +[ACAccount supportsSecureCoding]
111163 ms | | | | -[ACAccount _setAccountStore:0x283916df0]
111163 ms | | | | | -[ACAccountType setAccountStore:0x283916df0]
111163 ms | | | | -[ACAccount _setAccountStore:0x283916df0]
111163 ms | | | | | -[ACAccountType setAccountStore:0x283916df0]
111163 ms | | | | -[ACAccount _setAccountStore:0x283916df0]
111163 ms | | | | | -[ACAccountType setAccountStore:0x283916df0]
111164 ms | | | | -[ACAccount description]
111164 ms | | | | | -[ACAccount username]
111164 ms | | | | | | -[ACAccount _useParentForCredentials]
111164 ms | | | | | | | -[ACAccount authenticationType]
111164 ms | | | | | | -[ACAccount identifier]
111164 ms | | | | -[ACAccount description]
111164 ms | | | | | -[ACAccount username]
111164 ms | | | | | | -[ACAccount _useParentForCredentials]
111164 ms | | | | | | | -[ACAccount authenticationType]
111164 ms | | | | | | -[ACAccount identifier]
111164 ms | | | | -[ACAccount description]
111164 ms | | | | | -[ACAccount username]
111164 ms | | | | | | -[ACAccount _useParentForCredentials]
111164 ms | | | | | | | -[ACAccount authenticationType]
111164 ms | | | | | | -[ACAccount identifier]
111164 ms | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
111164 ms | | | -[ACAccount isActive]
111164 ms | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
111164 ms | | | -[ACAccount isActive]
111164 ms | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
111164 ms | | | -[ACAccount isActive]
111186 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith

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Identifier:0x2807dbf00]
/* TID 0x103 */
111186 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28165a440]
111186 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dbf00]
111199 ms -[ACNotificationRebroadcaster _accountStoreDidChange:0x281d26580]
111199 ms -[ACAccountStore visibleTopLevelAccountsWithAccountTypeIdentifiers:0x283cd60
00 completion:0x16fd69d98]
111199 ms | -[ACAccountStore remoteAccountStoreSession]
111199 ms | | -[ACTimedExpirer scheduleExpiration:0x16fd69b90]
111199 ms | | | -[ACTimedExpirer _unsafeCancelTimer]
111199 ms | -[ACRemoteAccountStoreSession remoteObjectProxyWithErrorHandler:0x16fd6
9b70]
111199 ms | | -[ACRemoteAccountStoreSession _connection]
111199 ms -[AMSAccountsChangedObservable _accountStoreDidChange:0x28165a440]
111199 ms | +[AMSLogConfig sharedAccountsConfig]
111199 ms | -[AMSLogConfig OSLogObject]
111199 ms | | -[AMSLogConfig propertyAccessQueue]
111199 ms | | -[AMSLogConfig backingOSLogObject]
/* TID 0x11c23 */
111201 ms -[ACAccountStore dmc_visibleRemoteManagementAccounts]
111201 ms | -[ACAccountStore dmc_RemoteManagementAccounts]
111201 ms | | -[ACAccountStore dmc_RemoteManagementAccountType]
111201 ms | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x1e741
8c58]
111201 ms | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x
1e7418c58 error:0x0]
111201 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
111201 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x1703f64c
0]
111201 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0xc533 */
111201 ms -[AACloudServiceOwner accountForService:0x1ecb2df10]
111201 ms | +[AACloudServiceOwner _serviceTypeForPlatform]
111201 ms | -[ACAccountStore aa_primaryAppleAccount]
111201 ms | | -[ACAccountStore accountsWithAccountTypeIdentifiers:0x28100d400 pr
eloadedProperties:0x0 error:0x0]
111201 ms | | | -[ACAccountStore remoteAccountStoreSession]
111201 ms | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e410]
111201 ms | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111201 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWit
hErrorHandler:0x16fe7e3f0]
111201 ms | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0x11c23 */
111201 ms | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObj
ectProxyWithErrorHandler:0x1703f64a0]
111201 ms | | | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xc533 */
111202 ms +[ACAccountStore ams_sharedAccountStoreForMediaType:0x1e77eaeb0]
111202 ms | +[AMSUnitTests isRunningUnitTests]
111202 ms | +[ACAccountStore defaultStore]
111202 ms -[ACAccountStore ams_activeiTunesAccount]
111202 ms | -[ACAccountStore ams_mediaType]
111202 ms | | +[AMSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
111202 ms | | | +[AMSAccountStoreCache cacheAccessQueue]
111202 ms | | | | +[AMSAccountStoreCache cache]
111202 ms | | | | | +[AMSAccountStoreCache cacheAccessQueue]

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111202 ms | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
111202 ms | | | | +[AMSUnitTests isRunningUnitTests]
111202 ms | | | | +[AMSProcessInfo defaultMediaAccessQueue]
111202 ms | -[ACAccountStore ams_iTunesAccounts]
111203 ms | | -[ACAccountStore ams_mediaType]
111203 ms | | | +[AMSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
111203 ms | | | | +[AMSAccountStoreCache cacheAccessQueue]
111203 ms | | | | +[AMSAccountStoreCache cache]
111203 ms | | | | | +[AMSAccountStoreCache cacheAccessQueue]
111203 ms | | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
111203 ms | | | | | +[AMSUnitTests isRunningUnitTests]
111203 ms | | | | | +[AMSProcessInfo defaultMediaAccessQueue]
111203 ms | | | | +[ACAccountStore ams_accountTypeIdentifierForMediaType:0x1e77eaeb0
]
111203 ms | | | -[ACAccountStore _ams_accountsWithAccountTypeIdentifier:0x1e741887
8 options:0x1 error:0x16fe7e5c8]
111203 ms | | | | -[ACAccountStore _ams_accountTypeWithIdentifier:0x
1e7418878 error:0x16fe7e5c8]
111203 ms | | | | | -[ACAccountStore accountTypeWithIdentifier:0x
1e7418878 error:0x16fe7e4e8]
111203 ms | | | | | | -[ACAccountStore remoteAccountStoreSession]
111203 ms | | | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e28
0]
111203 ms | | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111203 ms | | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x16fe7e260]
111203 ms | | | | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0x11c23 */
111203 ms | | | | | | | | | -[ACAccountType setAccountStore:0x283916df0]
111203 ms | | | | | | | | | -[ACAccountType description]
111203 ms | | | | | | | | | | -[ACAccountType accountTypeDescription]
111203 ms | | | | | | | | | | -[ACAccountType identifier]
/* TID 0xc533 */
111203 ms | | | | | | | | | | | -[ACAccountType setAccountStore:0x283916df0]
111203 ms | | | | | | | | | | -[ACAccountType description]
111203 ms | | | | | | | | | | | -[ACAccountType accountTypeDescription]
111203 ms | | | | | | | | | | | -[ACAccountType identifier]
111203 ms | | | | | | | | | | -[ACAccountStore _ams_accountsWithAccountType:0x283996e60 opt
ions:0x1 error:0x16fe7e5c8]
111203 ms | | | | | | | | | | | -[ACAccountStore accountsWithAccountType:0x283996e60 opt
ions:0x1 error:0x16fe7e548]
111203 ms | | | | | | | | | | | | -[ACAccountType description]
111203 ms | | | | | | | | | | | | | -[ACAccountType accountTypeDescription]
111203 ms | | | | | | | | | | | | | -[ACAccountType identifier]
111203 ms | | | | | | | | | | | | -[ACAccountStore remoteAccountStoreSession]
111203 ms | | | | | | | | | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e21
0]
111203 ms | | | | | | | | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0x11c23 */
111203 ms | | | | | | | | | | | | | -[ACAccountStore accountsWithAccountType:0x283928310]
111203 ms | | | | | | | | | | | | | | -[ACAccountType description]
111203 ms | | | | | | | | | | | | | | | -[ACAccountType accountTypeDescription]
111203 ms | | | | | | | | | | | | | | | -[ACAccountType identifier]
111203 ms | | | | | | | | | | | | | | -[ACAccountStore remoteAccountStoreSession]
/* TID 0xc533 */
111203 ms | | | | | | | | | | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje

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ctProxyWithErrorHandler:0x16fe7e1f0]
111203 ms | | | | | | | -[ACRemoteAccountStoreSession _connection]
    /* TID 0x11c23 */
111203 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x1703f6470]
111203 ms | | | | | -[ACTimedExpirer _unsafeCancelTimer]
    /* TID 0xc533 */
111203 ms | | | | | -[ACAccountType encodeWithCoder:0x10225c800]
111203 ms | | | | | -[ACAccountType identifier]
111203 ms | | | | | -[ACAccountType accountTypeDescription]
111203 ms | | | | | -[ACAccountType objectID]
111203 ms | | | | | -[ACAccountType visibility]
111203 ms | | | | | -[ACAccountType credentialProtectionPolicy]
111203 ms | | | | | -[ACAccountType supportsAuthentication]
111203 ms | | | | | -[ACAccountType supportsMultipleAccounts]
111203 ms | | | | | -[ACAccountType owningBundleID]
111204 ms | | | | | -[ACAccountType isObsolete]

    /* TID 0x11c23 */
111204 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x1703f6450]
111204 ms | | | | | -[ACRemoteAccountStoreSession _connection]
111204 ms | | | | | -[ACAccountType encodeWithCoder:0x101a88e00]
111204 ms | | | | | -[ACAccountType identifier]
111204 ms | | | | | -[ACAccountType accountTypeDescription]
111204 ms | | | | | -[ACAccountType objectID]
111204 ms | | | | | -[ACAccountType visibility]
111204 ms | | | | | -[ACAccountType credentialProtectionPolicy]
111204 ms | | | | | -[ACAccountType supportsAuthentication]
111204 ms | | | | | -[ACAccountType supportsMultipleAccounts]
111204 ms | | | | | -[ACAccountType owningBundleID]
111204 ms | | | | | -[ACAccountType isObsolete]

    /* TID 0x1251f */
111205 ms -[AKAppleIDAuthenticationContextManager dismissBasicLoginUIForContext:0x12036fed0 completion:0x2839f4620]
111205 ms | -[AKAppleIDAuthenticationContextManager _clientSideContextForServerContext:0x12036fed0]
111205 ms | | -[AKAppleIDAuthenticationContext _identifier]
111205 ms | | -[AKAppleIDAuthenticationContext _identifier]
111205 ms | | -[AKAppleIDAuthenticationContext _updateWithValuesFromContext:0x12036fed0]
111205 ms | -[AKAppleIDAuthenticationInAppContext dismissBasicLoginUIWithCompletion:0x2839f4620]
111205 ms | | -[AKAppleIDAuthenticationInAppContext inAppAuthUIProvider]
111205 ms | | | -[AKInAppAuthenticationRemoteUIProvider initWithContext:0x10410b850]
111205 ms | | | | -[AKInAppAuthenticationRemoteUIDelegate initWithContext:0x10410b850]
111205 ms | | | -[AKInAppAuthenticationRemoteUIProvider dismissBasicLoginUIWithCompletion:0x2839f4620]

    /* TID 0x103 */
111205 ms -[AKInAppAuthenticationRemoteUIProvider cleanUpBasicLoginWithCompletion:0x16fd6a988]
111205 ms | -[AKInAppAuthenticationRemoteUIProvider _shouldShowAsView]
    /* TID 0xf107 */
111206 ms +[AKAppleIDAuthenticationController sensitiveAuthenticationKeys]
111206 ms +[AKAppleIDAuthenticationController sensitiveAuthenticationKeys]
111206 ms +[AKAppleIDAuthenticationController sensitiveAuthenticationKeys]

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/* TID 0xc533 */
111206 ms | | | | | | -[ACAccount _setAccountStore:0x283916df0]
111206 ms | | | | | | | -[ACAccountType setAccountStore:0x283916df0]
111206 ms | | | | | -[ACAccount _setAccountStore:0x283916df0]
111206 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
111206 ms | | | | | -[ACAccount _setAccountStore:0x283916df0]
111206 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
111206 ms | | | | | -[ACAccount description]
111206 ms | | | | | | -[ACAccount username]
111206 ms | | | | | | | -[ACAccount _useParentForCredentials]
111206 ms | | | | | | | | -[ACAccount authenticationType]
111206 ms | | | | | | -[ACAccount identifier]
111206 ms | | | | | | -[ACAccount description]
111206 ms | | | | | | | -[ACAccount username]

/* TID 0xf107 */
111206 ms +[AKAppleIDAAuthenticationController sensitiveAuthenticationKeys]
/* TID 0xc533 */
111206 ms | | | | | | | -[ACAccount _useParentForCredentials]
/* TID 0xf107 */
111206 ms +[AKAppleIDAAuthenticationController sensitiveAuthenticationKeys]
111206 ms +[AKAppleIDAAuthenticationController sensitiveAuthenticationKeys]
/* TID 0xc533 */
111206 ms | | | | | | | | | -[ACAccount authenticationType]
/* TID 0xf107 */
111207 ms +[AKAppleIDAAuthenticationController sensitiveAuthenticationKeys]
/* TID 0xc533 */
111207 ms | | | | | | | -[ACAccount identifier]
111207 ms | | | | | | -[ACAccount description]
111207 ms | | | | | | | -[ACAccount username]
111207 ms | | | | | | | | -[ACAccount _useParentForCredentials]
111207 ms | | | | | | | | | -[ACAccount authenticationType]
111207 ms | | | | | | -[ACAccount identifier]
111207 ms | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
111207 ms | | | -[ACAccount isActive]
111207 ms | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
111207 ms | | | -[ACAccount isActive]
111207 ms | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
111207 ms | | | -[ACAccount isActive]
/* TID 0xf107 */
111207 ms -[AKAppleIDAAuthenticationContextManager unregisterContext:0x10410b850]
111207 ms | | -[AKAppleIDAAuthenticationContext _identifier]
/* TID 0x103 */
111207 ms -[AAUISignInViewController _delegate_signInViewControllerDidCompleteWithAuth
enticationResults:0x2816ab1e0]
111207 ms | | -[AAUISignInViewController delegate]
111207 ms | | -[AAUISignInController signInViewController:0x10400ce10 didCompleteWith
AuthenticationResults:0x2816ab1e0]
111207 ms | | | -[AAUISignInController _mainQueue_presentSpinnerViewControllerAnimatedInPa
rentViewController:0x103812200 withCompletion:0x16fd6a8d8]
111207 ms | | | | -[AAUISignInController _spinnerViewController]

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111207 ms | | | | | -[AAUISignerViewController initWithNibName:0x0 bundle:0
x0]
111207 ms | | | | | | -[AAUISignerViewController _commonInit]
111208 ms | | | | | | | -[AAUISignerViewController setSpinning:0x1]
111208 ms | | | | | | | -[AAUISignerViewController label]
111208 ms | | | | | | | -[AAUISignInController serviceType]
111208 ms | | | | | | | -[AAUISignInController _spinnerMessageForService:0x0]
    /* TID 0x11c23 */
111208 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807e3e40]
    /* TID 0x1251f */
111210 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807dfb00]
    /* TID 0x103 */
111211 ms | | | | | -[AAUISignInController _mainQueue_continueSignInWithAuthentic
ationResults:0x2816ab1e0 parentViewController:0x103812200]
111211 ms | | | | | | -[AAUISignInController serviceType]
111211 ms | | | | | | -[AAUISignInController serviceContextWithResults:0x2816a
b1e0 parentViewController:0x103812200]
111211 ms | | | | | | | -[AAUISignInController _shouldForceOperation]
111212 ms | | | | | | | -[AAUISignInFlowControllerDelegate initWithPresenti
ngViewController:0x103812200]
111212 ms | | | | | | | | -[ACAccountStore init]
111212 ms | | | | | | | | | -[ACAccountStore initWithRemoteEndpoint:0
x0 effectiveBundleID:0x0]
111212 ms | | | | | | | | | | +[ACTimedExpirer expirerWithTimeout:
0x1e]
111212 ms | | | | | | | | | | | -[ACTimedExpirer init]
111212 ms | | | | | | | | | | | +[ACTimedExpirer expirerWithTimeout:
0x1e]
111212 ms | | | | | | | | | | | | -[ACTimedExpirer init]
111212 ms | | | | | | | | | | | | | +[ACNotificationRebroadcaster shared
Rebroadcaster]
111212 ms | | | | | | | | | | | | | | -[AAUISignInController _serviceOwnersManager]
111212 ms | | | | | | | | | | | | | | | -[AAUISignInController _serviceOwnersManager]
111213 ms | | | | | | | | | | | | | | | | -[AACloudServiceOwner signInService:0x1ecb2df10 withCont
ext:0x2831f0730 completion:0x16fd6a660]
111213 ms | | | | | | | | | | | | | | | | | +[AACloudServiceOwner _serviceTypeForPlatform]
111213 ms | | | | | | | | | | | | | | | | | | -[AASignInFlowController init]
111213 ms | | | | | | | | | | | | | | | | | | | -[ACAccountStore init]
111213 ms | | | | | | | | | | | | | | | | | | | | -[ACAccountStore initWithRemoteEndpoint:0
x0 effectiveBundleID:0x0]
111213 ms | | | | | | | | | | | | | | | | | | | | | +[ACTimedExpirer expirerWithTimeout:
0x1e]
111213 ms | | | | | | | | | | | | | | | | | | | | | | -[ACTimedExpirer init]
111213 ms | | | | | | | | | | | | | | | | | | | | | | +[ACTimedExpirer expirerWithTimeout:
0x1e]
111213 ms | | | | | | | | | | | | | | | | | | | | | | | -[ACTimedExpirer init]
111213 ms | | | | | | | | | | | | | | | | | | | | | | | | +[ACNotificationRebroadcaster shared
Rebroadcaster]
111213 ms | | | | | | | | | | | | | | | | | | | | | | | | | | -[AASignInFlowController setShouldAutomaticallySave
SignInResults:0x1]
111213 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | -[AASignInFlowController setCdpUIProvider:0x2836f47
e0]
111213 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[AASignInFlowController setDelegate:0x2831f0820]
111213 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[AASignInFlowController signInWithIDMSAuthenticati

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onResults:0x28169c620 completion:0x16fd6a5b0]
111213 ms | | | | | | | -[AASignInFlowController _updateOrCreateAppleA
ccountForAuthResults:0x28169c620 accountCreationError:0x16fd6a4b0]
111213 ms | | | | | | | -[ACAccountStore aa_appleAccountWithPerso
nID:0x28169cf40]
111213 ms | | | | | | | | | -[ACAccountStore accountsWithAccount
TypeIdentifiers:0x28100d780 preloadedProperties:0x0 error:0x0]
111213 ms | | | | | | | | | | -[ACAccountStore remoteAccounts
storeSession]
111213 ms | | | | | | | | | | | -[ACAccountStore connectio
nDelegate]
111213 ms | | | | | | | | | | | | -[ACRemoteAccountStoreSess
ion initWithListenerEndpoint:0x0 delegate:0x0]
111213 ms | | | | | | | | | | | | | -[ACAccountStoreClien
tSideListener initWithDelegate:0x0]
111213 ms | | | | | | | | | | | | | | -[ACAccountStore effective
BundleID]
111213 ms | | | | | | | | | | | | | | | -[ACRemoteAccountStoreSess
ion setEffectiveBundleID:0x0]
111213 ms | | | | | | | | | | | | | | | | -[ACTimedExpirer scheduleE
xpiration:0x16fd6a030]
111213 ms | | | | | | | | | | | | | | | | | -[ACTimedExpirer _uns
afeCancelTimer]
111213 ms | | | | | | | | | | | | | | | | | | -[ACRemoteAccountStoreSession s
ynchronousRemoteObjectProxyWithErrorHandler:0x16fd6a010]
111213 ms | | | | | | | | | | | | | | | | | | | -[ACRemoteAccountStoreSess
ion _connection]
111213 ms | | | | | | | | | | | | | | | | | | | | -[ACTrackedXPCCConnect
ion init]
111213 ms | | | | | | | | | | | | | | | | | | | | | +[ACRemoteAccountStor
eInterface XPCInterface]
111213 ms | | | | | | | | | | | | | | | | | | | | | | -[ACRemoteAccountStor
eSession _locked_configureRemoteAccountStoreWithConnection:0x282346080]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | -[AASignInFlowController _createNewAppleA
ccountWithAuthResults:0x28169c620 accountCreationError:0x16fd6a4b0]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountStore aa_appleAccountType
]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountStore accountTypeWit
hAccountTypeID:0x1e74187d8 error:0x0]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountStore remoteAcc
ountStoreSession]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACTimedExpirer sche
duleExpiration:0x16fd6a110]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACTimedExpirer
_unsafeCancelTimer]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACRemoteAccountStoreSess
ion synchronousRemoteObjectProxyWithErrorHandler:0x16fd6a0f0]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACRemoteAccountStor
eSession _connection]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | +[ACAccountType supportsSe
cureCoding]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType setAccount
Store:0x2839f4a10]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType descriptio
n]
111215 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType accou

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ntTypeDescription]
111216 ms | | | | | | | | | | | -[ACAccountType identifier]
111216 ms | | | | | | | | | | | -[ACAccount initWithAccountType:0x2839f4460]
111216 ms | | | | | | | | | | | -[ACAccountType supportsAuthentication]
111216 ms | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417f18]
111216 ms | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417f98]
111216 ms | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417e98]
111216 ms | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417f58]
111216 ms | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417f78]
111216 ms | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417d78]
111216 ms | | | | | | | | | | | -[ACAccount setUsername:0x281d07cc0]
111216 ms | | | | | | | | | | | -[ACAccount _useParentForCredentials]
111216 ms | | | | | | | | | | | -[ACAccount authenticationType]
111216 ms | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417e58]
111216 ms | | | | | | | | | | | -[ACAccount _aa_setPersonID:0x281659c0]
111216 ms | | | | | | | | | | | -[ACAccount setAccountProperty:0x2816599c0 forKey:0x1e8b42670]
111216 ms | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
111216 ms | | | | | | | | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b42670]
111216 ms | | | | | | | | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0x1e8b42670]
111216 ms | | | | | | | | | | | -[AASignInFlowController _userPersonUniqueString]
111216 ms | | | | | | | | | | | +[AAPreferences isMultipleFullAccountsEnabled]
111216 ms | | | | | | | | | | | +[AADeviceInfo isInternalBuild]
111216 ms | | | | | | | | | | | -[ACAccountStore aa_primaryAppleAccount]
111216 ms | | | | | | | | | | | -[ACAccountStore accountsWithAccountTypeIdentifiers:0x28100d4e0 preloadedProperties:0x0 error:0x0]
111216 ms | | | | | | | | | | | -[ACAccountStore remoteAccountStoreSession]
111216 ms | | | | | | | | | | | -[ACTimedExpire scheuleExpiration:0x16fd69fe0]
111216 ms | | | | | | | | | | | -[ACTimedExpire _unsafeCancelTimer]
111216 ms | | | | | | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x16fd69fc0]
111216 ms | | | | | | | | | | | -[ACRemoteAccountStoreSession _connection]
111216 ms | | | | | | | | | | | -[ACAccountStore aa_dataSeparatedAcc
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ounts]
111216 ms | | | | | | | | | -[ACAccountStore aa_appleAccoun
ts]
111216 ms | | | | | | | | | -[ACAccountStore accountsW
ithAccountTypeIdentifiers:0x281008790 preloadedProperties:0x0 error:0x0]
111216 ms | | | | | | | | | -[ACAccountStore remo
teAccountStoreSession]
111216 ms | | | | | | | | | -[ACTimedExpirer
scheduleExpiration:0x16fd69fc0]
111216 ms | | | | | | | | | -[ACTimedEx
pirer _unsafeCancelTimer]
111216 ms | | | | | | | | | -[ACRemoteAccountStor
eSession synchronousRemoteObjectProxyWithErrorHandler:0x16fd69fa0]
111216 ms | | | | | | | | | -[ACRemoteAccoun
tStoreSession _connection]
111216 ms | | | | | | | | | -[AASignInFlowController _nameForClo
udService]
111218 ms | | | | | | | | | -[ACAccount setAccountDescription:0x
b40cf5309fe54ceb]
111218 ms | | | | | | | | | -[ACAccount parentAccount]
111218 ms | | | | | | | | | -[ACAccount _unsafe_markPropert
yDirty:0x1e7417e78]
111218 ms | | | | | | | | | -[ACAccount aa_setAccountClass:0x1e8
b42a50]
111218 ms | | | | | | | | | -[ACAccount accountType]
111218 ms | | | | | | | | | -[ACAccountType identifier]
111218 ms | | | | | | | | | -[ACAccount setObject:0x1e8b42a
50 forKeyedSubscript:0x1e8b42c10]
111218 ms | | | | | | | | | -[ACAccount setAccountProp
erty:0x1e8b42a50 forKey:0x1e8b42c10]
111218 ms | | | | | | | | | -[ACAccount _unsafe_m
arkPropertyDirty:0x1e7417df8]
111218 ms | | | | | | | | | -[ACAccount _markAcco
untPropertyDirty:0x1e8b42c10]
111218 ms | | | | | | | | | -[ACAccount _uns
afe_markAccountPropertyDirty:0x1e8b42c10]
111218 ms | | | | | | | | | -[ACAccount setObject:0x1f6189a
f8 forKeyedSubscript:0x1e8b426f0]
111218 ms | | | | | | | | | -[ACAccount setAccountProp
erty:0x1f6189af8 forKey:0x1e8b426f0]
111218 ms | | | | | | | | | -[ACAccount _unsafe_m
arkPropertyDirty:0x1e7417df8]
111218 ms | | | | | | | | | -[ACAccount _markAcco
untPropertyDirty:0x1e8b426f0]
111218 ms | | | | | | | | | -[ACAccount _uns
afe_markAccountPropertyDirty:0x1e8b426f0]
111218 ms | | | | | | | | | -[AASignInFlowController _saveTermsW
ithAuthResults:0x28169c620 account:0x282b408c0]
111218 ms | | | | | | | | | -[AASignInFlowController _updateAppleAcco
unt:0x282b408c0 withAuthenticationResults:0x28169c620]
111218 ms | | | | | | | | | +[ACAccountCredential credentialWith
Password:0x100711390]
111218 ms | | | | | | | | | -[ACAccountCredential initWithP
assword:0x100711390]
111218 ms | | | | | | | | | -[ACAccountCredential setP
assword:0x100711390]
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111218 ms | | | | | | | | | | | | | -[ACAccountCredential
  setCredentialItem:0x100711390 forKey:0x1e7419098]
111218 ms | | | | | | | | | | | | | -[ACZeroingString
  initWithString:0x100711390]
111218 ms | | | | | | | | | | | | | -[ACAccountCrede
  ntial _markPropertyDirty:0x1e7419578]
111218 ms | | | | | | | | | | | | | -[ACAccount setCredential:0x281ce7e7
  0]
111218 ms | | | | | | | | | | | | | -[ACAccount _useParentForCreden
  tials]
111218 ms | | | | | | | | | | | | | -[ACAccount authentication
  Type]
111218 ms | | | | | | | | | | | | | -[ACAccount _installCredentials
  ChangedObserver]
111218 ms | | | | | | | | | | | | | -[ACAccountCredential _setOwnin
  gAccount:0x282b408c0]
111218 ms | | | | | | | | | | | | | -[ACAccount _unsafe_markProp
  ertyDirty:0x1e7417d98]
111218 ms | | | | | | | | | | | | | -[ACAccount setLastCredentialRe
  newalRejectionDate:0x0]
111218 ms | | | | | | | | | | | | | -[ACAccount _useParentForC
  redentials]
111218 ms | | | | | | | | | | | | | -[ACAccount authenticationType]
111218 ms | | | | | | | | | | | | | -[ACAccount _unsafe_markPr
  opertyDirty:0x1e7417ed8]
111218 ms | | | | | | | | | | | | | -[ACAccount _aa_setRawPassword:0x281
  6a8de0]
111218 ms | | | | | | | | | | | | | -[ACAccount _aa_rawPassword]
111218 ms | | | | | | | | | | | | | -[ACAccount credential]
111218 ms | | | | | | | | | | | | | -[ACAccount credential
  lWithError:0x0]
111218 ms | | | | | | | | | | | | | -[ACAccount _use
  ParentForCredentials]
111218 ms | | | | | | | | | | | | | -[ACAccount
  authenticationType]
111218 ms | | | | | | | | | | | | | -[ACAccountCredential cred
  entialItemForKey:0x1e7419198]
111218 ms | | | | | | | | | | | | | -[ACAccount credential]
111218 ms | | | | | | | | | | | | | -[ACAccount credentialWith
  Error:0x0]
111218 ms | | | | | | | | | | | | | -[ACAccount _usePare
  ntForCredentials]
111218 ms | | | | | | | | | | | | | -[ACAccount auth
  enticationType]
111218 ms | | | | | | | | | | | | | -[ACAccountCredential setCreden
  tialItem:0x2816a8de0 forKey:0x1e7419198]
111219 ms | | | | | | | | | | | | | -[ACZeroingString initWith
  String:0x2816a8de0]
111219 ms | | | | | | | | | | | | | -[ACAccountCredential _mar
  kPropertyDirty:0x1e7419578]
111219 ms | | | | | | | | | | | | | -[ACAccount _markCred
  entialDirty]
111219 ms | | | | | | | | | | | | | -[ACAccount _mar
  kPropertyDirty:0x1e7417d98]
111219 ms | | | | | | | | | | | | | -[ACAccount
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Unsafe_markPropertyDirty:0x1e7417d98]
111219 ms | | | | | | | | -[ACAccount aa_isAccountClass:0x1e8b42a50
]
111219 ms | | | | | | | | | -[ACAccount aa_accountClass]
111219 ms | | | | | | | | | | -[ACAccount objectForKeyedSubsc
ript:0x1e8b42c10]
111219 ms | | | | | | | | | | | -[ACAccount accountPropert
yForKey:0x1e8b42c10]
111219 ms | | | | | | | | | | | -[AASignInFlowController _createCDPContex
tForPrimaryAccount:0x282b408c0 withAuthResults:0x28169c620]
111219 ms | | | | | | | | | | | | -[AASignInFlowController delegate]
111219 ms | | | | | | | | | | | | -[AASignInFlowController delegate]
111219 ms | | | | | | | | | | | | | -[AAUISignInFlowControllerDelegate s
kipCDPEnablement]
111219 ms | | | | | | | | | | | | | | -[AASignInFlowController delegate]
111219 ms | | | | | | | | | | | | | | -[AASignInFlowController delegate]
111219 ms | | | | | | | | | | | | | | | -[AAUISignInFlowControllerDelegate c
dpContext]
111219 ms | | | | | | | | | | | | | | | | -[AASignInFlowController messageSess
ion]
111219 ms | | | | | | | | | | | | | | | | | -[AASignInFlowController ignoreLockA
ssertErrors]
111219 ms | | | | | | | | | | | | | | | | | -[AASignInFlowController _delegateRequiresTerm
s]
111219 ms | | | | | | | | | | | | | | | | | | -[AASignInFlowController delegate]
111219 ms | | | | | | | | | | | | | | | | | | -[AASignInFlowController delegate]
111219 ms | | | | | | | | | | | | | | | | | | | -[AAUISignInFlowControllerDelegate requir
edTerms]
111219 ms | | | | | | | | | | | | | | | | | | | -[AASignInFlowController _registerAndVerifyLog
inFor iCloudAccount:0x282b408c0 withCompletion:0x2807d6400]
111219 ms | | | | | | | | | | | | | | | | | | | | +[AAPreferences shouldUseUnifiedLoginEndp
oint]
111221 ms | | | | | | | | | | | | | | | | | | | | | +[AAiCloudLoginAccountRequester delegateP
aramsForAllDelegates]
111221 ms | | | | | | | | | | | | | | | | | | | | | -[ACAccountStore aa_loginAndUpdateiCloudA
ccount:0x282b408c0 delegateParams:0x2807d5040 withCompletion:0x16fd6a398]
111221 ms | | | | | | | | | | | | | | | | | | | | | | -[ACAccount accountType]
111221 ms | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType identifier]
111221 ms | | | | | | | | | | | | | | | | | | | | | | | -[AAiCloudLoginAccountRequester logi
nWithAccount:0x282b408c0 forDelegates:0x2807d5040 completion:0x16fd6a2b0]
111221 ms | | | | | | | | | | | | | | | | | | | | | | | | -[AALoginAccountRequest initWith
hAccount:0x282b408c0 delegates:0x2807d5040]
111221 ms | | | | | | | | | | | | | | | | | | | | | | | | | -[AARequest performSignedReques
tWithHandler:0x16fd6a258]
111221 ms | | | | | | | | | | | | | | | | | | | | | | | | | | +[AAURLSession sharedSigni
ngSession]
111221 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | -[AARequest performRequest
WithSession:0x281cc68b0 withHandler:0x16fd6a258]
111221 ms | | -[AAUISignInViewController _setEnabled:0x1]
111221 ms | | | -[AAUISignInViewController _hasValidCredentials]
111221 ms | | | | -[AAUISignInViewController _setUsernameCellWaiting:0x0]
111221 ms | | -[ACMonitoredAccountStore credentialsChangedNotification:0x28169d280]
111221 ms | | | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807e3e40]
111222 ms | -[ACAccount credentialsChanged:0x28169d280]
111222 ms | | -[ACAccount identifier]
111222 ms | | -[ACMonitoredAccountStore credentialsChangedNotification:0x28169d0a0]

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111222 ms      | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dfb00]
111222 ms      -[ACAccount credentialsChanged:0x28169d0a0]
111222 ms      | -[ACAccount identifier]
/* TID 0x11c23 */
111222 ms      -[AALoginAccountRequest urlString]
111222 ms      | +[AAURLConfiguration urlConfiguration]
111222 ms      | | +[AAURLConfiguration _urlConfigurationWithError:0x0]
111222 ms      | | | +[AAURLConfiguration remoteServer]
111222 ms      | | | | +[AARemoteServer sharedServer]
111222 ms      | | | | -[AARemoteServer configurationWithCompletion:0x1703f6d48]
111222 ms      | | | | | -[AARemoteServer _configurationAndResponseWithCompletion
:0x1703f6ce8]
111222 ms      | | | | | | -[AARemoteServer _configurationCacheInvalidateIfN
ecessary]
111222 ms      | | | | | | | -[AARemoteServer _configurationLock_configuration
CacheInvalidateIfNecessary]
111222 ms      | | | | | | | | -[AARemoteServerConfigurationCache creati
onDate]
111222 ms      | | | | | | | | | -[AARemoteServerConfigurationCache configuration]
111222 ms      | | | | | | | | | -[AARemoteServerConfigurationCache response]
111222 ms      | | -[AAURLConfiguration loginAccountURL]
111222 ms      | | | -[AAURLConfiguration _urlStringForKey:0x1e8b3eb10]
111222 ms      -[AALoginAccountRequest urlRequest]
111222 ms      | -[AARequest urlRequest]
111222 ms      | | -[AALoginAccountRequest urlString]
111222 ms      | | | +[AAURLConfiguration urlConfiguration]
111222 ms      | | | | +[AAURLConfiguration _urlConfigurationWithError:0x0]
111222 ms      | | | | | +[AAURLConfiguration remoteServer]
111222 ms      | | | | | | -[AARemoteServer configurationWithCompletion:0x1703
f6b18]
111222 ms      | | | | | | | -[AARemoteServer _configurationAndResponseWith
Completion:0x1703f6ab8]
111222 ms      | | | | | | | | -[AARemoteServer _configurationCacheInval
idatingIfNecessary]
111222 ms      | | | | | | | | | -[AARemoteServer _configurationLock_
configurationCacheInvalidateIfNecessary]
111222 ms      | | | | | | | | | | -[AARemoteServerConfigurationCa
che creationDate]
111222 ms      | | | | | | | | | | | -[AARemoteServerConfigurationCache config
uration]
111223 ms      | | | | | | | | | -[AARemoteServerConfigurationCache respon
se]
111223 ms      | | | | -[AAURLConfiguration loginAccountURL]
111223 ms      | | | | | -[AAURLConfiguration _urlStringForKey:0x1e8b3eb10]
/* TID 0x103 */
111226 ms      -[AAUISpinnerViewController viewDidLoad]
/* TID 0x11c23 */
111227 ms      | | -[AARequest flushCache]
111227 ms      | | +[AADeviceInfo clientInfoHeader]
111228 ms      | | | +[AADeviceInfo clientInfoHeader]
111228 ms      | | | | -[AADeviceInfo productType]
111228 ms      | | | | | -[AADeviceInfo osName]
111228 ms      | | | | | +[AADeviceInfo osVersion]
111228 ms      | | | | | | -[AADeviceInfo buildVersion]
/* TID 0x103 */
111228 ms      -[AAUISpinnerViewController viewWillAppears:0x1]

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    /* TID 0x11c23 */
111230 ms |     | +[AAPreferences isExperimentalModeEnabled]
111230 ms |     | +[AADeviceInfo isInternalBuild]
111231 ms | -[AARequest bodyDictionary]
111231 ms |     | +[AARequest protocolVersion]
111231 ms |     | +[AADeviceInfo appleIDClientIdentifier]
111231 ms |     | +[AADeviceInfo appleIDClientIdentifier]
111236 ms | +[AADeviceInfo udid]
111237 ms | +[AADeviceInfo udid]
111237 ms |     | +[AADeviceInfo udid]
/* TID 0x103 */
111237 ms -[AAUIServiceIconView didMoveToWindow]
/* TID 0x11c23 */
111237 ms | -[ACAccount description]
111237 ms |     | -[ACAccount username]
111237 ms |     |     | -[ACAccount _useParentForCredentials]
111237 ms |     |     | -[ACAccount authenticationType]
111237 ms |     | -[ACAccount identifier]
111237 ms | -[ACAccount username]
111237 ms |     | -[ACAccount _useParentForCredentials]
111237 ms |     |     | -[ACAccount authenticationType]
111237 ms |     | -[ACAccount aa_password]
111237 ms |     | -[ACAccount credential]
111237 ms |     |     | -[ACAccount credentialWithError:0x0]
111237 ms |     |     | -[ACAccount _useParentForCredentials]
111237 ms |     |     |     | -[ACAccount authenticationType]
111237 ms |     | -[ACAccountCredential password]
111238 ms |     |     | -[ACAccountCredential credentialItemForKey:0x1e7419098]
111238 ms |     |     | -[ACZeroingString length]
111238 ms |     |     | -[ACZeroingString getCharacters:0x129628580 range:0x0]
111238 ms | -[ACAccount username]
111238 ms |     | -[ACAccount _useParentForCredentials]
111238 ms |     |     | -[ACAccount authenticationType]
111238 ms |     | -[ACAccount aa_password]
111238 ms |     | -[ACAccount credential]
111238 ms |     |     | -[ACAccount credentialWithError:0x0]
111238 ms |     |     | -[ACAccount _useParentForCredentials]
111238 ms |     |     |     | -[ACAccount authenticationType]
111238 ms |     | -[ACAccountCredential password]
111238 ms |     |     | -[ACAccountCredential credentialItemForKey:0x1e7419098]
111238 ms |     |     | -[ACZeroingString length]
111238 ms |     |     | -[ACZeroingString getCharacters:0x12961eb90 range:0x0]
111238 ms | -[ACAccount aa_altdSID]
111238 ms |     | -[ACAccount accountPropertyForKey:0x1e8b3c830]
111238 ms |     | -[ACAccount aa_repairState]
111238 ms |     | -[ACAccount parentAccount]
111238 ms |     | -[ACAccount accountPropertyForKey:0x1e8b42bf0]
111238 ms |     | -[ACAccount aa_personID]
111238 ms |     | -[ACAccount accountPropertyForKey:0x1e8b42670]
111238 ms |     | -[AADeviceProvisioningSession initWithDSID:0x2816599c0]
111238 ms |     | -[AADeviceProvisioningSession addProvisioningInfoToURLRequest:0x28100c0
c0 sendEmptyValues:0x0]
111238 ms |     | -[AADeviceProvisioningSession deviceProvisioningInfo]
/* TID 0x103 */
111241 ms -[AAUIServiceIconView didMoveToWindow]
/* TID 0x11c23 */

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111242 ms      | +[AKDevice currentDeviceAuthenticationMode]
111242 ms      |     | +[AKDevice _currentDeviceAuthenticationMode]
111242 /* TID 0x1251f */
111242 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807dacc0]
111242 /* TID 0x11c23 */
111244 ms      | +[AARequest redactedHeadersFromHTTPHeaders:0x2807d67c0]
111244 ms      |     | -[AARequest redactedBodyStringWithPropertyList:0x281659c00]
111244 ms -[AAURLSession dataTaskWithRequest:0x28100c0c0 completion:0x1703f6e40]
111244 ms      | -[AAURLSession _enqueueRequest:0x28100c0c0 completion:0x1703f6e40]
111245 ms      |     | -[AKAppleIDSession initWithIdentifier:0x281cc6e50]
111245 ms      |     | -[AAURLSessionContext _initRequiringSigning:0x1 appleIDSession:0x2
807d6380]
111245 /* TID 0xc533 */
111246 ms -[AAURLSession _sessionQueue_enqueueTask:0x1006f4b90 completion:0x281cc79c0]
111246 /* TID 0x11c23 */
111248 ms -[AAURLSessionContext URLSession:0x104216cb0 task:0x1006f4b90 getAppleIDHe
adersForResponse:0x0 completionHandler:0x1703f6650]
111248 ms      | -[AKAppleIDSession URLSession:0x104216cb0 task:0x12035aed0 getAppleIDHe
adersForResponse:0x0 completionHandler:0x1703f65c0]
111248 ms      |     | -[AKAppleIDSession _generateAppleIDHeadersForSessionTask:0x12035ae
d0 withCompletion:0x1703f6538]
111248 ms      |     |     | -[AKAppleIDSession _nativeAnisetteController]
111248 ms      |     |     | -[AKAnisetteProvisioningController init]
111248 ms      |     |     | -[AKAnisetteProvisioningController anisetteDataForURLRequest:
0x28100c4f0 completion:0x1703f6428]
111248 ms      |     |     | -[AKAnisetteProvisioningController fetchAnisetteDataAndP
rovisionIfNecessary:0x1 withCompletion:0x1703f6428]
111248 ms      |     |     | -[AKAnisetteProvisioningController _anisetteService
Connection]
111248 ms      |     |     | +[AKAnisetteProvisioningDaemonInterface XPCInt
erface]
111248 ms      |     |     | +[AKAnisetteProvisioningClientInterface XPCInt
erface]
111248 /* TID 0x103 */
111254 ms -[ACNotificationRebroadcaster _accountStoreDidChange:0x281c22490]
111254 /* TID 0xf107 */
111254 ms +[AKAnisetteData supportsSecureCoding]
111254 ms -[AKAppleIDSession _genericAppleIDHeadersDictionaryForRequest:0x28100c4f0]
111254 /* TID 0x103 */
111254 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x2816bfce0]
111254 ms      | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dacc0]
111254 ms -[ACAccount credentialsChanged:0x2816bfce0]
111254 ms      | -[ACAccount identifier]
111254 /* TID 0xf107 */
111255 ms      | +[AKDevice currentDevice]
111255 ms      | -[AKDevice locale]
111255 ms -[AKAnisetteData machineID]
111255 ms -[AKAnisetteData oneTimePassword]
111255 ms -[AKAnisetteData routingInfo]
111255 ms +[AKDevice currentDevice]
111255 ms -[AKDevice localUserUUID]
111255 ms +[AKConfiguration sharedConfiguration]
111255 ms -[AKConfiguration shouldAllowTestApplication]
111255 ms      | -[AKConfiguration configurationValueForKey:0x1e8b17ff8]
111255 ms -[AKAppleIDSession _pairedDeviceAnisetteController]

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111255 ms -[AAURLSessionContext _additionalHeadersForRequest:0x28100daa0 completion:0x
1701c6270]
111255 ms | -[AAURLSessionContext requiresSigning]
/* TID 0xc533 */
111255 ms -[ACAccountStore dmc_visibleRemoteManagementAccounts]
111255 ms | -[ACAccountStore dmc_RemoteManagementAccounts]
111255 ms | | -[ACAccountStore dmc_RemoteManagementAccountType]
111255 ms | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x1e741
8c58]
111255 ms | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x
1e7418c58 error:0x0]
111255 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
111255 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e4c
0]
111255 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0x103 */
111255 ms -[ACAccountStore visibleTopLevelAccountsWithAccountTypeIdentifiers:0x283c299
00 completion:0x16fd69d98]
111255 ms | -[ACAccountStore remoteAccountStoreSession]
111255 ms | | -[ACTimedExpirer scheduleExpiration:0x16fd69b90]
111255 ms | | | -[ACTimedExpirer _unsafeCancelTimer]
111255 ms | -[ACRemoteAccountStoreSession remoteObjectProxyWithErrorHandler:0x16fd6
9b70]
111255 ms | | -[ACRemoteAccountStoreSession _connection]
111256 ms -[AMSAccountsChangedObservable _accountStoreDidChange:0x2816be8a0]
111256 ms | +[AMSLogConfig sharedAccountsConfig]
111256 ms | -[AMSLogConfig OSLogObject]
111256 ms | | -[AMSLogConfig propertyAccessQueue]
111256 ms | | -[AMSLogConfig backingOSLogObject]
/* TID 0xf107 */
111256 ms | -[AAURLSessionContext remoteServer]
111256 ms | | +[AARemoteServer sharedServer]
111256 ms | -[AARemoteServer configurationWithCompletion:0x1701c61f0]
111256 ms | | -[AARemoteServer _configurationAndResponseWithCompletion:0x1701c61
98]
111256 ms | | | -[AARemoteServer _configurationCacheInvalidateingIfNecessary]
111256 ms | | | | -[AARemoteServer _configurationLock_configurationCacheIn
validatingIfNecessary]
111256 ms | | | | | -[AARemoteServerConfigurationCache creationDate]
111256 ms | | | | | -[AARemoteServerConfigurationCache configuration]
111256 ms | | | | | -[AARemoteServerConfigurationCache response]
111256 ms | | | | +[AADeviceInfo currentInfo]
111256 ms | | | | +[AADeviceInfo udid]
/* TID 0x1251f */
111256 ms +[NSError _web_errorWithDomain:0x1f61f0440 code:0xfffffffffffffc19 URL:0x283
9f5500]
111256 ms | -[NSError _web_initWithDomain_nowarn:0x1f61f0440 code:0xfffffffffffffc1
9 URL:0x2839f5500]
111256 ms | | -[NSError initWithDomain:0x1f61f0440 code:0xfffffffffffffc19 userI
nfo:0x2816bd3e0]
111256 ms | -[NSError userInfo]
111256 ms | -[NSError domain]
111256 ms | -[NSError code]
111256 ms | -[NSError domain]
111256 ms | -[NSError code]
111256 ms | -[NSError userInfo]

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111256 ms -[NSError userInfo]
111256 ms -[NSError domain]
111256 ms -[NSError code]
111256 ms +[NSError errorWithDomain:0x1f61f0440 code:0xfffffffffffffc19 userInfo:0x281
6bc540]
111256 ms | -[NSError initWithDomain:0x1f61f0440 code:0xfffffffffffffc19 userInfo:0
x2816bc540]
111256 ms -[NSError code]
111256 ms -[NSError code]
111256 ms -[NSError description]
111256 ms | -[NSError userInfo]
111256 ms | -[NSError domain]
111256 ms | -[NSError userInfo]
111256 ms | -[NSError domain]
111256 ms | -[NSError userInfo]
111256 ms | -[NSError domain]
111256 ms | -[NSError code]
/* TID 0x11c23 */
111257 ms -[AACloudServiceOwner accountForService:0x1ecb2df10]
111257 ms | +[AACloudServiceOwner _serviceTypeForPlatform]
111257 ms | -[ACAccountStore aa_primaryAppleAccount]
111257 ms | | -[ACAccountStore accountsWithAccountTypeIdentifiers:0x2810210d0 pr
eloadedProperties:0x0 error:0x0]
111257 ms | | | -[ACAccountStore remoteAccountStoreSession]
/* TID 0xc533 */
111257 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x16fe7e4a0]
111257 ms | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xf107 */
111257 ms | | | | +[AADeviceInfo currentInfo]
111257 ms | | | | +[AADeviceInfo serialNumber]
111257 ms | | | | -[AAURLConfiguration absintheEnable]
111257 ms | | | | -[AAURLSessionContext _additionalAbsintheHeadersForData:0x120
32b4b0 completion:0x2807ea140]
111258 ms | | | | -[AAURLSessionContext absintheSigner]
/* TID 0x11c23 */
111258 ms | | | | -[ACTimedExpirer scheduleExpiration:0x1703f6410]
111258 ms | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111258 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWit
hErrorHandler:0x1703f63f0]
111258 ms | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xc533 */
111258 ms | | | | | -[ACAccountType setAccountStore:0x283916df0]
111258 ms | | | | | -[ACAccountType description]
111258 ms | | | | | | -[ACAccountType accountTypeDescription]
111258 ms | | | | | | -[ACAccountType identifier]
111258 ms | | | | -[ACAccountStore accountsWithAccountType:0x2839f4ee0]
111258 ms | | | | | -[ACAccountType description]
111258 ms | | | | | | -[ACAccountType accountTypeDescription]
111258 ms | | | | | | -[ACAccountType identifier]
/* TID 0xf107 */
111258 ms | | | | | | +[AAAabsintheSigner sharedSigner]
111258 ms | | | | | | -[AAAabsintheSigner signatureForData:0x12032b4b0 completi
on:0x1701c5f28]
111258 ms | | | | | | -[AAAabsintheSigner _contextWithCompletion:0x1701c5e

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b0]
111258 ms | | | | | | | -[AAAbsintheSigner context]
111258 ms | | | | | | | -[AAAbsintheSigner _contextLock_contextIn
validatingIfNecessary]
111258 ms | | | | | | | | -[AAAbsintheSignerContextCache creat
ionDate]
111258 ms | | | | | | | | -[AAAbsintheSignerContextCache conte
xt]
111258 ms | | | | | | | | -[AAAbsintheContext cao1NI5PNJBn:0x12032b4b0 e
rror:0x1701c5df8]
/* TID 0xc533 */
111259 ms | | | | -[ACAccountStore remoteAccountStoreSession]
111259 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e470]
111259 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111259 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWit
hErrorHandler:0x16fe7e450]
111259 ms | | | | | -[ACRemoteAccountStoreSession _connection]
111259 ms | | | | -[ACAccountType encodeWithCoder:0x10225c800]
111259 ms | | | | | -[ACAccountType identifier]
111259 ms | | | | | -[ACAccountType accountTypeDescription]
111259 ms | | | | | -[ACAccountType objectID]
111259 ms | | | | | -[ACAccountType visibility]
111259 ms | | | | | -[ACAccountType credentialProtectionPolicy]
111259 ms | | | | | -[ACAccountType supportsAuthentication]
111259 ms | | | | | -[ACAccountType supportsMultipleAccounts]
111259 ms | | | | | -[ACAccountType owningBundleID]
111259 ms | | | | | -[ACAccountType isObsolete]
/* TID 0x11c23 */
111259 ms +[ACAccountStore ams_sharedAccountStoreForMediaType:0x1e77eaeb0]
111259 ms | +[AMSUnitTests isRunningUnitTests]
111259 ms | +[ACAccountStore defaultStore]
111260 ms -[ACAccountStore ams_activeiTunesAccount]
111260 ms | -[ACAccountStore ams_mediaType]
111260 ms | | +[MSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
111260 ms | | | +[MSAccountStoreCache cacheAccessQueue]
111260 ms | | | +[MSAccountStoreCache cache]
111260 ms | | | | +[MSAccountStoreCache cacheAccessQueue]
111260 ms | | | +[MSProcessInfo defaultMediaTypeForCurrentProcess]
111260 ms | | | | +[MSUnitTests isRunningUnitTests]
111260 ms | | | | +[MSProcessInfo defaultMediaTypeAccessQueue]
111260 ms | -[ACAccountStore ams_iTunesAccounts]
111260 ms | | -[ACAccountStore ams_mediaType]
111260 ms | | | +[MSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
111260 ms | | | | +[MSAccountStoreCache cacheAccessQueue]
111260 ms | | | | +[MSAccountStoreCache cache]
111260 ms | | | | | +[MSAccountStoreCache cacheAccessQueue]
111260 ms | | | | +[MSProcessInfo defaultMediaTypeForCurrentProcess]
111260 ms | | | | | +[MSUnitTests isRunningUnitTests]
111260 ms | | | | | +[MSProcessInfo defaultMediaTypeAccessQueue]
111260 ms | | +[ACAccountStore ams_accountTypeIdentifierForMediaType:0x1e77eaeb0
]
111260 ms | | | -[ACAccountStore _ams_accountsWithAccountTypeIdentifier:0x1e741887
8 options:0x1 error:0x1703f65c8]
111260 ms | | | | -[ACAccountStore _ams_accountTypeWithAccountTypeIdentifier:0x
1e7418878 error:0x1703f65c8]
111260 ms | | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x

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1e7418878 error:0x1703f64e8]
111260 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
111260 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x1703f628
0]
111260 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111260 ms | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x1703f6260]
111260 ms | | | | | | | -[ACRemoteAccountStoreSession _connection]
111261 ms | | | | | | | -[ACAccountType setAccountStore:0x283916df0]
111261 ms | | | | | | | -[ACAccountType description]
111261 ms | | | | | | | | -[ACAccountType accountTypeDescription]
111261 ms | | | | | | | | -[ACAccountType identifier]
111261 ms | | | | | -[ACAccountStore _ams_accountsWithAccountType:0x2839a8230 opt
ions:0x1 error:0x1703f65c8]
111261 ms | | | | | | -[ACAccountStore accountsWithAccountType:0x2839a8230 opt
ions:0x1 error:0x1703f6548]
111261 ms | | | | | | | -[ACAccountType description]
111261 ms | | | | | | | | -[ACAccountType accountTypeDescription]
111261 ms | | | | | | | | -[ACAccountType identifier]
111261 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
111261 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x1703f621
0]
111261 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
111261 ms | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x1703f61f0]
111261 ms | | | | | | | -[ACRemoteAccountStoreSession _connection]
111261 ms | | | | | | | -[ACAccountType encodeWithCoder:0x102837c00]
111261 ms | | | | | | | | -[ACAccountType identifier]
111261 ms | | | | | | | | -[ACAccountType accountTypeDescription]
111261 ms | | | | | | | | -[ACAccountType objectID]
111261 ms | | | | | | | | -[ACAccountType visibility]
111261 ms | | | | | | | | -[ACAccountType credentialProtectionPolicy]
111261 ms | | | | | | | | -[ACAccountType supportsAuthentication]
111261 ms | | | | | | | | -[ACAccountType supportsMultipleAccounts]
111261 ms | | | | | | | | -[ACAccountType owningBundleID]
111261 ms | | | | | | | | -[ACAccountType isObsolete]
111266 ms | | | | | | -[ACAccount _setAccountStore:0x283916df0]
111266 ms | | | | | | | -[ACAccountType setAccountStore:0x283916df0]
111267 ms | | | | | -[ACAccount _setAccountStore:0x283916df0]
111267 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
111267 ms | | | | | -[ACAccount _setAccountStore:0x283916df0]
111267 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
111267 ms | | | | | | | -[ACAccount description]
111267 ms | | | | | | | | -[ACAccount username]
111267 ms | | | | | | | | | -[ACAccount _useParentForCredentials]
111267 ms | | | | | | | | | | -[ACAccount authenticationType]
111267 ms | | | | | | | | | -[ACAccount identifier]
111267 ms | | | | | -[ACAccount description]
111267 ms | | | | | | -[ACAccount username]
111267 ms | | | | | | | -[ACAccount _useParentForCredentials]
111267 ms | | | | | | | | -[ACAccount authenticationType]
111267 ms | | | | | | | | -[ACAccount identifier]
111267 ms | | | | | -[ACAccount description]
111267 ms | | | | | | -[ACAccount username]
111267 ms | | | | | | | -[ACAccount _useParentForCredentials]
111267 ms | | | | | | | | -[ACAccount authenticationType]

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111267 ms | | | | | -[ACAccount identifier]
111267 ms | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
111267 ms | | -[ACAccount isActive]
111267 ms | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
111267 ms | | -[ACAccount isActive]
111267 ms | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
111267 ms | | -[ACAccount isActive]
/* TID 0x1251f */
111268 ms +[NSError errorWithDomain:0x1e753a3e0 code:0x1 userInfo:0x281262e60]
111268 ms | -[NSError initWithDomain:0x1e753a3e0 code:0x1 userInfo:0x281262e60]
/* TID 0xf107 */
111268 ms | | | -[AAURLConfiguration baaInterval]
/* TID 0x1251f */
111281 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807dea80]
/* TID 0x103 */
111281 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28164f7e0]
111281 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dea80]
111281 ms -[ACAccount credentialsChanged:0x28164f7e0]
111281 ms | -[ACAccount identifier]
/* TID 0x11c23 */
111286 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807daa00]
/* TID 0x103 */
111287 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x2816a8640]
111287 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807daa00]
111287 ms -[ACAccount credentialsChanged:0x2816a8640]
111287 ms | -[ACAccount identifier]
/* TID 0x11c23 */
111292 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807dedc0]
/* TID 0x103 */
111292 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28164f860]
111292 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dedc0]
111292 ms -[ACAccount credentialsChanged:0x28164f860]
111292 ms | -[ACAccount identifier]
/* TID 0x11c23 */
111298 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807c1180]
/* TID 0x103 */
111298 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169db60]
111298 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807c1180]
111298 ms -[ACAccount credentialsChanged:0x28169db60]
111298 ms | -[ACAccount identifier]
/* TID 0x11c23 */
111304 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807c1140]
/* TID 0x103 */
111306 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169de60]
111306 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807c1140]
111306 ms -[ACAccount credentialsChanged:0x28169de60]
111306 ms | -[ACAccount identifier]
111307 ms +[NSError errorWithDomain:0x1e753a3e0 code:0x1 userInfo:0x1f13a58c8]
111307 ms | -[NSError initWithDomain:0x1e753a3e0 code:0x1 userInfo:0x1f13a58c8]
/* TID 0x1251f */
111310 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith

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Identifier:0x2807e9240]
    /* TID 0x103 */
111310 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169e200]
111310 ms     | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807e9240]
111310 ms -[ACAccount credentialsChanged:0x28169e200]
111310 ms     | -[ACAccount identifier]
    /* TID 0x1251f */
111316 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807ded00]
    /* TID 0x103 */
111316 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169e200]
111316 ms     | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807ded00]
111316 ms -[ACAccount credentialsChanged:0x28169e200]
111316 ms     | -[ACAccount identifier]
    /* TID 0xf107 */
111318 ms +[NSError errorWithDomain:0x1e753a3e0 code:0x1 userInfo:0x28164f860]
111318 ms     | -[NSError initWithDomain:0x1e753a3e0 code:0x1 userInfo:0x28164f860]
    /* TID 0x103 */
111319 ms +[NSError errorWithDomain:0x1e753a3e0 code:0x1 userInfo:0x28169cb60]
111319 ms     | -[NSError initWithDomain:0x1e753a3e0 code:0x1 userInfo:0x28169cb60]
    /* TID 0x1251f */
111322 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807d76c0]
    /* TID 0x103 */
111322 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169df60]
111322 ms     | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807d76c0]
111322 ms -[ACAccount credentialsChanged:0x28169df60]
111322 ms     | -[ACAccount identifier]
    /* TID 0x1251f */
111328 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807dea80]
    /* TID 0x103 */
111328 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169e020]
111328 ms     | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dea80]
111328 ms -[ACAccount credentialsChanged:0x28169e020]
111328 ms     | -[ACAccount identifier]
    /* TID 0x1251f */
111333 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807c0a00]
    /* TID 0x103 */
111333 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169e020]
111333 ms     | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807c0a00]
111333 ms -[ACAccount credentialsChanged:0x28169e020]
111333 ms     | -[ACAccount identifier]
    /* TID 0x1251f */
111338 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807c54c0]
    /* TID 0x103 */
111338 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169e200]
111338 ms     | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807c54c0]
111338 ms -[ACAccount credentialsChanged:0x28169e200]
111338 ms     | -[ACAccount identifier]
    /* TID 0x1251f */
111343 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807dedc0]
    /* TID 0x103 */

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111343 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169e200]
111343 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dedc0]
111343 ms -[ACAccount credentialsChanged:0x28169e200]
111343 ms | -[ACAccount identifier]
/* TID 0x1251f */
111348 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807dab80]
/* TID 0x103 */
111348 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169e200]
111348 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dab80]
111348 ms -[ACAccount credentialsChanged:0x28169e200]
111348 ms | -[ACAccount identifier]
/* TID 0x1251f */
111356 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807dbec0]
/* TID 0x103 */
111357 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169e200]
111357 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dbec0]
111357 ms -[ACAccount credentialsChanged:0x28169e200]
111357 ms | -[ACAccount identifier]
/* TID 0x1251f */
111362 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807c0ac0]
/* TID 0x103 */
111362 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169e200]
111362 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807c0ac0]
111362 ms -[ACAccount credentialsChanged:0x28169e200]
111362 ms | -[ACAccount identifier]
/* TID 0x1251f */
111368 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807c4000]
/* TID 0x103 */
111368 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169e020]
111368 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807c4000]
111368 ms -[ACAccount credentialsChanged:0x28169e020]
111368 ms | -[ACAccount identifier]
/* TID 0x1251f */
111373 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807c54c0]
/* TID 0x103 */
111373 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169e200]
111373 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807c54c0]
111373 ms -[ACAccount credentialsChanged:0x28169e200]
111373 ms | -[ACAccount identifier]
111769 ms -[AAUIServiceIconView didMoveToWindow]
111770 ms -[AAUISignInViewController viewDidDisappear:0x1]
111770 ms | -[AAUISignInViewController _endObservingSizeCategoryNotification]
111770 ms | -[AAUISignInViewController _endObservingTextFieldDidChangeNotifications
]
111771 ms | -[AAUISignInViewController _endObservingKeyboardWillShowNotifications]
/* TID 0x1251f */
116376 ms -[AAURLSession URLSession:0x104216cb0 dataTask:0x1006f4b90 didReceiveData:0x
2807c0b40]
116376 ms | -[AAURLSession _sessionQueue_updateTask:0x1006f4b90 withData:0x2807c0b4
0]
116377 ms -[AAURLSession URLSession:0x104216cb0 task:0x1006f4b90 didCompleteWithError:

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0x0]
116377 ms | -[AAURLSession _sessionQueue_dequeueTask:0x1006f4b90 withResponse:0x281263500 error:0x0]
116377 ms | | -[AARequest _handleDataTaskCompletionWithData:0x123b14000 response:0x281263500 error:0x0]
116379 ms | | | +[AALoginAccountRequest responseClass]
116379 ms | | | -[AALoginAccountResponse initWithHTTPResponse:0x281263500 data:a:0x123b14000]
116380 ms | | | | -[AAResponse initWithHTTPResponse:0x281263500 data:0x123b14000 bodyIsPlist:0x1]
116381 ms | | | | | -[AAResponse _parsePlistResponse:0x123b14000]
116384 ms | | | | | -[AAResponse responseDictionary]
116384 ms | | | | | -[AALoginAccountResponse _parseResponse:0xc8 responseBody:y:0x2816b2020]
116384 ms | | | | | | -[AAResponse responseDictionary]
116384 ms | | | | | | -[AAResponse responseDictionary]
116384 ms | | | | | | -[AAResponse responseDictionary]
116384 ms | | | | | | -[AALoginResponseAppleAccountInfo initWithDictionary:y:0x2816591e0]
116384 ms | | | | | | -[AALoginResponseCloudTokens initWithTokens:0x281659e60]
116384 ms | | | | | | -[AALoginResponseDataclasses initWithCloudServiceData:0x2816b03a0]
116385 ms | | | | -[AAResponse error]
116385 ms | | | | -[AALoginAccountResponse convertToProvisioningResponse]
116385 ms | | | | | -[AALoginAccountResponse responseParametersForServiceIdentifier:0x1e8b3f330]
116385 ms | | | | | | -[AALoginAccountResponse responseForDelegates]
116385 ms | | | | | | -[AAProvisioningResponse initWithDictionary:0x2816591e0]
116385 ms | | | | | | | -[AAResponse responseDictionary]
116385 ms | | | | | | | -[AAResponse responseDictionary]
116385 ms | | | | | | | -[AAResponse responseDictionary]
116385 ms | | | | | | | -[AAResponse responseDictionary]
116385 ms | | | | | | | -[AAResponse responseDictionary]
116385 ms | | | | | | | -[AAResponse responseDictionary]
116385 ms | | | | | | | -[ACAccount aa_updateWithProvisioningResponse:0x283126260]
116385 ms | | | | | | | | -[ACAccount username]
116386 ms | | | | | | | | -[ACAccount _useParentForCredentials]
116386 ms | | | | | | | | | -[ACAccount authenticationType]
116386 ms | | | | | | | | -[ACAccount aa_needsToVerifyTerms]
116386 ms | | | | | | | | | -[ACAccount parentAccount]
116386 ms | | | | | | | | | -[ACAccount accountPropertyForKey:0x1e8b42ad0]
116386 ms | | | | | | | | | -[ACAccount aa_suspensionInfo]
116386 ms | | | | | | | | | -[ACAccount parentAccount]
116386 ms | | | | | | | | | -[ACAccount accountPropertyForKey:0x1e8b3fc90]
116386 ms | | | | | | | | | -[AAAAuthenticationResponse altDSID]
116386 ms | | | | | | | | | -[ACAccount setAccountProperty:0x2807e9640 forKey:0x1e8b3c830]
116386 ms | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116386 ms | | | | | | | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3c830]
116386 ms | | | | | | | | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0x1e8b3c830]
116386 ms | | | | | | | | | | | -[AAProvisioningResponse dataclassProperties]
116387 ms | | | | | | | | | | | | -[AAProvisioningResponse provisionedDataclasses]
116387 ms | | | | | | | | | | | | -[ACAccount _aa_setDataclassProperties:0x2816591e0]
116387 ms | | | | | | | | | | | | | -[ACAccount setDataclassProperties:0x2816591e0]
116387 ms | | | | | | | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807]

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e9d40]
116387 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807e9d40]
116387 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
e8600]
116387 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807e8600]
116387 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
c7270]
116387 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cc7270]
116387 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
c9aa0]
116387 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cc9aa0]
116387 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
caafo]
116387 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281ccaafo]
116388 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
e8100]
116388 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807e8100]
116388 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
c9ef0]
116388 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cc9ef0]
116388 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
e8400]
116388 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807e8400]
116388 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
c7e70]
116388 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cc7e70]
116388 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
c9260]
116388 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cc9260]
116388 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
ea3c0]
116388 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807ea3c0]
116388 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
daaf0]
116388 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cdAAF0]
116388 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
da730]
116388 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cdA730]
116389 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
e8a40]
116389 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807e8a40]
116389 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c

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c8930]
116389 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cc8930]
116389 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
cbae0]
116389 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281ccbæ0]
116389 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
e9400]
116389 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807e9400]
116389 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
ca580]
116389 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cca580]
116389 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
e9700]
116389 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807e9700]
116389 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
c9b60]
116389 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cc9b60]
116389 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
cbfc0]
116389 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281ccbfc0]
116389 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
e8e40]
116390 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807e8e40]
116390 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
ea200]
116390 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807ea200]
116390 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
c8450]
116390 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cc8450]
116390 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
e9e80]
116390 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807e9e80]
116390 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
e4300]
116390 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281ce4300]
116390 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
e9a40]
116390 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807e9a40]
116390 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281d
17210]
116390 ms | | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281d17210]
116390 ms | | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
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c98f0]
116390 ms | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cc98f0]
116390 ms | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
cbc90]
116390 ms | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281ccbc90]
116390 ms | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
ca6a0]
116390 ms | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cca6a0]
116390 ms | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281d
17240]
116390 ms | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281d17240]
116390 ms | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
e9940]
116391 ms | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807e9940]
116391 ms | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
e5740]
116391 ms | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281ce5740]
116391 ms | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x2807
ea880]
116391 ms | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x2807ea880]
116391 ms | | | | | | | -[ACAccount _markDataclassPropertyDirty:0x281c
c8ba0]
116391 ms | | | | | | | -[ACAccount _unsafe_markDataclassProperty
Dirty:0x281cc8ba0]
116391 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417
e18]
116391 ms | | | | | | | -[AAAAuthenticationResponse personID]
116391 ms | | | | | | | -[ACAccount setAccountProperty:0x2816b08e0 forKey:0x1e8b
42670]
116391 ms | | | | | | | -[AAProvisioningResponse firstName]
116391 ms | | | | | | | -[ACAccount setAccountProperty:0x2816b2200 forKey:0x1e8b
3c550]
116391 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116391 ms | | | | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3c550]
116391 ms | | | | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b3c550]
116391 ms | | | | | | | -[AAProvisioningResponse lastName]
116391 ms | | | | | | | -[ACAccount setAccountProperty:0x2816b03c0 forKey:0x1e8b
3c570]
116391 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116391 ms | | | | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3c570]
116391 ms | | | | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b3c570]
116392 ms | | | | | | | -[AAProvisioningResponse primaryEmail]
116392 ms | | | | | | | -[ACAccount setAccountProperty:0x281cc7ab0 forKey:0x1e8b
3f5f0]
116392 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116392 ms | | | | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3f5f0]
116392 ms | | | | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0

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x1e8b3f5f0]
116392 ms | | | | -[AAProvisioningResponse primaryEmailVerified]
116392 ms | | | | -[ACAccount setAccountProperty:0x1f6189af8 forKey:0x1e8b
3f610]
116392 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116392 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3f610]
116392 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b3f610]
116392 ms | | | | -[AAProvisioningResponse appleIDAliases]
116392 ms | | | | -[ACAccount setAccountProperty:0x281cdafa0 forKey:0x1e8b
42710]
116392 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116392 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b42710]
116392 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b42710]
116392 ms | | | | -[AAResponse protocolVersion]
116392 ms | | | | -[ACAccount setAccountProperty:0xb43ecf8729c4e1d3 forKey
:0x1e8b3c650]
116392 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116392 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3c650]
116393 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b3c650]
116393 ms | | | | -[AAProvisioningResponse appleID]
116393 ms | | | | -[ACAccount setAccountProperty:0x281cc7ab0 forKey:0x1e8b
3f630]
116393 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116393 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3f630]
116393 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b3f630]
116393 ms | | | | -[AAProvisioningResponse regionInfo]
116393 ms | | | | -[ACAccount setAccountProperty:0x2816b1fe0 forKey:0x1e8b
3f750]
116393 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116393 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3f750]
116393 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b3f750]
116393 ms | | | | -[AAProvisioningResponse isManagedAppleID]
116393 ms | | | | -[ACAccount setAccountProperty:0x1f6189b10 forKey:0x1e8b
3f670]
116393 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116393 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3f670]
116393 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b3f670]
116393 ms | | | | -[AAProvisioningResponse isNotesMigrated]
116393 ms | | | | -[ACAccount setAccountProperty:0x1f6189af8 forKey:0x1e8b
3f690]
116393 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116393 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3f690]
116393 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b3f690]
116394 ms | | | | -[AAProvisioningResponse isRemindersMigrated]
116394 ms | | | | -[ACAccount setAccountProperty:0x1f6189b10 forKey:0x1e8b
42b90]
116394 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116394 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b42b90]
116394 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0

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x1e8b42b90]
116394 ms | | | | -[AAProvisioningResponse isRemindersAutoMigratableToCK]
116394 ms | | | | -[ACAccount setAccountProperty:0x1f6189b10 forKey:0x1e8b
42bb0]
116394 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116394 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b42bb0]
116394 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b42bb0]
116394 ms | | | | -[AAProvisioningResponse isSandboxAccount]
116394 ms | | | | -[ACAccount setAccountProperty:0x1f6189b10 forKey:0x1e8b
3f6f0]
116394 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116394 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3f6f0]
116394 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b3f6f0]
116394 ms | | | | -[AAProvisioningResponse isCloudDocsMigrated]
116394 ms | | | | -[ACAccount setAccountProperty:0x1f6189af8 forKey:0x1e8b
42b50]
116394 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116394 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b42b50]
116394 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b42b50]
116394 ms | | | | -[AAProvisioningResponse isCloudDocsMigrated]
116394 ms | | | | -[ACAccount setAccountProperty:0x1f6189af8 forKey:0x1e8b
42b10]
116394 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116395 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b42b10]
116395 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b42b10]
116395 ms | | | | -[AAProvisioningResponse hasOptionalTerms]
116395 ms | | | | -[ACAccount setAccountProperty:0x1f6189b10 forKey:0x1e8b
3f730]
116395 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116395 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3f730]
116395 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b3f730]
116395 ms | | | | -[AAProvisioningResponse isFamilyEligible]
116395 ms | | | | -[ACAccount setAccountProperty:0x1f6189af8 forKey:0x1e8b
3f790]
116395 ms | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417df8]
116395 ms | | | | -[ACAccount _markAccountPropertyDirty:0x1e8b3f790]
116395 ms | | | | -[ACAccount _unsafe_markAccountPropertyDirty:0
x1e8b3f790]
116395 ms | | | | -[AAProvisioningResponse provisionedDataclasses]
116395 ms | | | | +[AADataclassManager sharedManager]
116395 ms | | | | -[AADataclassManager init]
116395 ms | | | | -[ACAccountStore init]
116396 ms | | | | -[ACAccountStore initWithRemoteEndpoint:0
x0 effectiveBundleID:0x0]
116396 ms | | | | +[ACTimedExpirer expirerWithTimeout:
0x1e]
116396 ms | | | | -[ACTimedExpirer init]
116396 ms | | | | +[ACTimedExpirer expirerWithTimeout:
0x1e]
116396 ms | | | | -[ACTimedExpirer init]
116396 ms | | | | +[ACNotificationRebroadcaster shared

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Rebroadcaster]
116396 ms | | | | | -[AADataclassManager filteredServerProvidedFeatures:0x10
4013130 forAccount:0x282b408c0]
116396 ms | | | | | | -[ACAccount aa_accountClass]
116396 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8b42c1
0]
116396 ms | | | | | | | | -[ACAccount accountPropertyForKey:0x1e8b4
2c10]
116396 ms | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7e9d40 forAccount:0x282b408c0]
116396 ms | | | | | | | | | +[AADataclassManager sharedManager]
116396 ms | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807e9d40]
116397 ms | | | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807e9d40]
116397 ms | | | | | | | | | | | +[AADataclassManager sharedManager]
116397 ms | | | | | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x2807e9d40]
116397 ms | | | | | | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116397 ms | | | | | | | | | | | | | -[ACAccount aa_accountClass]
116397 ms | | | | | | | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116397 ms | | | | | | | | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116397 ms | | | | | | | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7e8600 forAccount:0x282b408c0]
116397 ms | | | | | | | | | | | | | | | | +[AADataclassManager sharedManager]
116397 ms | | | | | | | | | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807e8600]
116397 ms | | | | | | | | | | | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807e8600]
116397 ms | | | | | | | | | | | | | | | | | | | +[AADataclassManager sharedManager]
116397 ms | | | | | | | | | | | | | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x2807e8600]
116397 ms | | | | | | | | | | | | | | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116397 ms | | | | | | | | | | | | | | | | | | | | | -[ACAccount aa_accountClass]
116397 ms | | | | | | | | | | | | | | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116397 ms | | | | | | | | | | | | | | | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116397 ms | | | | | | | | | | | | | | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cc7270 forAccount:0x282b408c0]
116397 ms | | | | | | | | | | | | | | | | | | | | | | | +[AADataclassManager sharedManager]
116397 ms | | | | | | | | | | | | | | | | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cc7270]
116397 ms | | | | | | | | | | | | | | | | | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cc7270]
116400 ms | | | | | | | | | | | | | | | | | | | | | | | | | +[AADataclassManager sharedManager]
116400 ms | | | | | | | | | | | | | | | | | | | | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281cc7270]
116400 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116400 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[NSError initWithDomain:0x1f61f0180 code
:0xfffffffffffffd5c2 userInfo:0x2816bf080]

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116400 ms | | | | | | | -[NSError initWithDomain:0x1f61f0180 code
:0xfffffffffffffd5c2 userInfo:0x2816bf080]
116401 ms | | | | | | | -[NSError initWithDomain:0x1f61f0180 code
:0xfffffffffffffd5c2 userInfo:0x2816bf080]
116402 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cc9aa0 forAccount:0x282b408c0]
116402 ms | | | | | | | +[AADataclassManager sharedManager]
116402 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cc9aa0]
116402 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cc9aa0]
116402 ms | | | | | | | +[AADataclassManager sharedManager]
116402 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281cc9aa0]
116402 ms | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116402 ms | | | | | | | -[ACAccount aa_accountClass]
116402 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116403 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116403 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
ccaaef0 forAccount:0x282b408c0]
116403 ms | | | | | | | +[AADataclassManager sharedManager]
116403 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281ccaaef0]
116403 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281ccaaef0]
116403 ms | | | | | | | +[AADataclassManager sharedManager]
116403 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281ccaaef0]
116403 ms | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116405 ms | | | | | | | -[ACAccount aa_accountClass]
116406 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116406 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116406 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7e8100 forAccount:0x282b408c0]
116406 ms | | | | | | | +[AADataclassManager sharedManager]
116406 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807e8100]
116406 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807e8100]
116406 ms | | | | | | | +[AADataclassManager sharedManager]
116406 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x2807e8100]
116406 ms | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116406 ms | | | | | | | -[ACAccount aa_accountClass]
116406 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116406 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116406 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281

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cc9ef0 forAccount:0x282b408c0]
116406 ms | | | | | | | +[AADataclassManager sharedManager]
116406 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cc9ef0]
116406 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cc9ef0]
116406 ms | | | | | | | +[AADataclassManager sharedManager]
116406 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281cc9ef0]
116406 ms | | | | | | | | +[AADataclassManager appBundleIdentifi
fierDictionary]
116406 ms | | | | | | | -[ACAccount aa_accountClass]
116406 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116406 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116406 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7e8400 forAccount:0x282b408c0]
116406 ms | | | | | | | +[AADataclassManager sharedManager]
116406 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807e8400]
116406 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807e8400]
116406 ms | | | | | | | +[AADataclassManager sharedManager]
116406 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x2807e8400]
116406 ms | | | | | | | | +[AADataclassManager appBundleIdentifi
fierDictionary]
116406 ms | | | | | | | -[ACAccount aa_accountClass]
116406 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116406 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116406 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cc7e70 forAccount:0x282b408c0]
116406 ms | | | | | | | +[AADataclassManager sharedManager]
116406 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cc7e70]
116406 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cc7e70]
116407 ms | | | | | | | +[AADataclassManager sharedManager]
116407 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281cc7e70]
116407 ms | | | | | | | | +[AADataclassManager appBundleIdentifi
fierDictionary]
116408 ms | | | | | | | -[ACAccount aa_accountClass]
116408 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116408 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116408 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x1e7
416ab8 forAccount:0x282b408c0]
116408 ms | | | | | | | +[AADataclassManager sharedManager]
116408 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x1e7416ab8]
116408 ms | | | | | | | -[AADataclassManager _isRestrictedForData

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class:0x1e7416ab8]
116408 ms | | | | | | | | +[AADataclassManager sharedManager]
116408 ms | | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x1e7416ab8]
116408 ms | | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116408 ms | | | | | | | | -[ACAccount aa_accountClass]
116408 ms | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116408 ms | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116408 ms | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cc9260 forAccount:0x282b408c0]
116408 ms | | | | | | | | +[AADataclassManager sharedManager]
116408 ms | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cc9260]
116408 ms | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cc9260]
116408 ms | | | | | | | | +[AADataclassManager sharedManager]
116408 ms | | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281cc9260]
116408 ms | | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116409 ms | | | | | | | | -[ACAccount aa_accountClass]
116409 ms | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116409 ms | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116409 ms | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7ea3c0 forAccount:0x282b408c0]
116409 ms | | | | | | | | +[AADataclassManager sharedManager]
116409 ms | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807ea3c0]
116409 ms | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807ea3c0]
116409 ms | | | | | | | | +[AADataclassManager sharedManager]
116409 ms | | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x2807ea3c0]
116409 ms | | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116409 ms | | | | | | | | -[ACAccount aa_accountClass]
116409 ms | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116409 ms | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116409 ms | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cd4aa0 forAccount:0x282b408c0]
116409 ms | | | | | | | | +[AADataclassManager sharedManager]
116409 ms | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cd4aa0]
116409 ms | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cd4aa0]
116409 ms | | | | | | | | +[AADataclassManager sharedManager]
116409 ms | | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281cd4aa0]
116409 ms | | | | | | | | +[AADataclassManager appBundleIdentifi

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fierDictionary]
116410 ms | | | | | | | -[ACAccount aa_accountClass]
116410 ms | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116410 ms | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116410 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cda730 forAccount:0x282b408c0]
116410 ms | | | | | | | | +[AADataclassManager sharedManager]
116410 ms | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cda730]
116410 ms | | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cda730]
116410 ms | | | | | | | | | | +[AADataclassManager sharedManager]
116410 ms | | | | | | | | | | -[AADataclassManager AppBundleIdentifierF
orDataclass:0x281cda730]
116410 ms | | | | | | | | | | | +[AADataclassManager AppBundleIdentifi
fierDictionary]
116412 ms | | | | | | | -[ACAccount aa_accountClass]
116412 ms | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116412 ms | | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116412 ms | | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7e8a40 forAccount:0x282b408c0]
116412 ms | | | | | | | | | | | +[AADataclassManager sharedManager]
116412 ms | | | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807e8a40]
116412 ms | | | | | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807e8a40]
116412 ms | | | | | | | | | | | | | +[AADataclassManager sharedManager]
116412 ms | | | | | | | | | | | | | -[AADataclassManager AppBundleIdentifierF
orDataclass:0x2807e8a40]
116412 ms | | | | | | | | | | | | | | +[AADataclassManager AppBundleIdentifi
fierDictionary]
116412 ms | | | | | | | -[ACAccount aa_accountClass]
116412 ms | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116412 ms | | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116412 ms | | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cc8930 forAccount:0x282b408c0]
116412 ms | | | | | | | | | | | +[AADataclassManager sharedManager]
116412 ms | | | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cc8930]
116412 ms | | | | | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cc8930]
116412 ms | | | | | | | | | | | | | +[AADataclassManager sharedManager]
116412 ms | | | | | | | | | | | | | -[AADataclassManager AppBundleIdentifierF
orDataclass:0x281cc8930]
116412 ms | | | | | | | | | | | | | | +[AADataclassManager AppBundleIdentifi
fierDictionary]
116412 ms | | | | | | | -[ACAccount aa_accountClass]
116412 ms | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116412 ms | | | | | | | | | -[ACAccount accountPropertyForKey:0x

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1e8b42c10]
116412 ms | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
ccbae0 forAccount:0x282b408c0]
116412 ms | | | | | +[AADataclassManager sharedManager]
116412 ms | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281ccbae0]
116412 ms | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281ccbae0]
116412 ms | | | | | +[AADataclassManager sharedManager]
116413 ms | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281ccbae0]
116413 ms | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116414 ms | | | | | | -[ACAccount aa_accountClass]
116414 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116414 ms | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116414 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7e9400 forAccount:0x282b408c0]
116414 ms | | | | | | | +[AADataclassManager sharedManager]
116414 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807e9400]
116414 ms | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807e9400]
116414 ms | | | | | | | +[AADataclassManager sharedManager]
116414 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x2807e9400]
116414 ms | | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116414 ms | | | | | | | | -[ACAccount aa_accountClass]
116414 ms | | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116414 ms | | | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116414 ms | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cca580 forAccount:0x282b408c0]
116415 ms | | | | | | | | +[AADataclassManager sharedManager]
116415 ms | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cca580]
116415 ms | | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cca580]
116415 ms | | | | | | | | +[AADataclassManager sharedManager]
116415 ms | | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281cca580]
116415 ms | | | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116415 ms | | | | | | | | | -[ACAccount aa_accountClass]
116415 ms | | | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116415 ms | | | | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116415 ms | | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
ccbfc0 forAccount:0x282b408c0]
116415 ms | | | | | | | | | | +[AADataclassManager sharedManager]
116415 ms | | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe

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movedForDataclass:0x281ccbf0]
116415 ms | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281ccbf0]
116415 ms | | | | | | | | +[AADataclassManager sharedManager]
116415 ms | | | | | | | | -[AADataclassManager AppBundleIdentifierF
orDataclass:0x281ccbf0]
116415 ms | | | | | | | | +[AADataclassManager AppBundleIdentifi
erDictionary]
116416 ms | | | | | | | | -[ACAccount aa_accountClass]
116416 ms | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116416 ms | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116416 ms | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cc9b60 forAccount:0x282b408c0]
116416 ms | | | | | | | | +[AADataclassManager sharedManager]
116416 ms | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cc9b60]
116416 ms | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cc9b60]
116416 ms | | | | | | | | +[AADataclassManager sharedManager]
116416 ms | | | | | | | | -[AADataclassManager AppBundleIdentifierF
orDataclass:0x281cc9b60]
116416 ms | | | | | | | | +[AADataclassManager AppBundleIdentifi
erDictionary]
116416 ms | | | | | | | | -[ACAccount aa_accountClass]
116417 ms | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116417 ms | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116417 ms | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7e9700 forAccount:0x282b408c0]
116417 ms | | | | | | | | +[AADataclassManager sharedManager]
116417 ms | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807e9700]
116417 ms | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807e9700]
116417 ms | | | | | | | | +[AADataclassManager sharedManager]
116417 ms | | | | | | | | -[AADataclassManager AppBundleIdentifierF
orDataclass:0x2807e9700]
116417 ms | | | | | | | | +[AADataclassManager AppBundleIdentifi
erDictionary]
116417 ms | | | | | | | | -[ACAccount aa_accountClass]
116417 ms | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116417 ms | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116417 ms | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7e8e40 forAccount:0x282b408c0]
116417 ms | | | | | | | | +[AADataclassManager sharedManager]
116417 ms | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807e8e40]
116417 ms | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807e8e40]
116417 ms | | | | | | | | +[AADataclassManager sharedManager]
116417 ms | | | | | | | | -[AADataclassManager AppBundleIdentifierF

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orDataclass:0x2807e8e40]
116417 ms | | | | | | | | | +[AADataclassManager appBundleIdentifierDictionary]
116417 ms | | | | | | | | | -[ACAccount aa_accountClass]
116417 ms | | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8b42c10]
116417 ms | | | | | | | | | -[ACAccount accountPropertyForKey:0x1e8b42c10]
116417 ms | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x2807ea200 forAccount:0x282b408c0]
116417 ms | | | | | | | | | +[AADataclassManager sharedManager]
116417 ms | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrMovedForDataclass:0x2807ea200]
116417 ms | | | | | | | | | -[AADataclassManager _isRestrictedForDataclass:0x2807ea200]
116417 ms | | | | | | | | | +[AADataclassManager sharedManager]
116417 ms | | | | | | | | | -[AADataclassManager appBundleIdentifierForDataclass:0x2807ea200]
116417 ms | | | | | | | | | +[AADataclassManager appBundleIdentifierDictionary]
116417 ms | | | | | | | | | -[ACAccount aa_accountClass]
116417 ms | | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8b42c10]
116417 ms | | | | | | | | | -[ACAccount accountPropertyForKey:0x1e8b42c10]
116417 ms | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281cc8450 forAccount:0x282b408c0]
116417 ms | | | | | | | | | +[AADataclassManager sharedManager]
116417 ms | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrMovedForDataclass:0x281cc8450]
116417 ms | | | | | | | | | -[AADataclassManager _isRestrictedForDataclass:0x281cc8450]
116417 ms | | | | | | | | | +[AADataclassManager sharedManager]
116417 ms | | | | | | | | | -[AADataclassManager appBundleIdentifierForDataclass:0x281cc8450]
116417 ms | | | | | | | | | +[AADataclassManager appBundleIdentifierDictionary]
116417 ms | | | | | | | | | -[ACAccount aa_accountClass]
116417 ms | | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8b42c10]
116417 ms | | | | | | | | | -[ACAccount accountPropertyForKey:0x1e8b42c10]
116417 ms | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x2807e9e80 forAccount:0x282b408c0]
116417 ms | | | | | | | | | +[AADataclassManager sharedManager]
116417 ms | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrMovedForDataclass:0x2807e9e80]
116417 ms | | | | | | | | | -[AADataclassManager _isRestrictedForDataclass:0x2807e9e80]
116418 ms | | | | | | | | | +[AADataclassManager sharedManager]
116418 ms | | | | | | | | | -[AADataclassManager appBundleIdentifierForDataclass:0x2807e9e80]
116418 ms | | | | | | | | | +[AADataclassManager appBundleIdentifierDictionary]
116418 ms | | | | | | | | | -[ACAccount aa_accountClass]
116418 ms | | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8

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b42c10]
116418 ms | | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116418 ms | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7e9a40 forAccount:0x282b408c0]
116418 ms | | | | | | | | | +[AADataclassManager sharedManager]
116418 ms | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807e9a40]
116418 ms | | | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807e9a40]
116418 ms | | | | | | | | | | | +[AADataclassManager sharedManager]
116418 ms | | | | | | | | | | | -[AADataclassManager AppBundleIdentifierF
orDataclass:0x2807e9a40]
116418 ms | | | | | | | | | | | | +[AADataclassManager AppBundleIdentifi
fierDictionary]
116418 ms | | | | | | | | | | | | | -[ACAccount aa_accountClass]
116418 ms | | | | | | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116418 ms | | | | | | | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116418 ms | | | | | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
d17210 forAccount:0x282b408c0]
116418 ms | | | | | | | | | | | | | | +[AADataclassManager sharedManager]
116418 ms | | | | | | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281d17210]
116418 ms | | | | | | | | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281d17210]
116418 ms | | | | | | | | | | | | | | | +[AADataclassManager sharedManager]
116418 ms | | | | | | | | | | | | | | | -[AADataclassManager AppBundleIdentifierF
orDataclass:0x281d17210]
116418 ms | | | | | | | | | | | | | | | | +[AADataclassManager AppBundleIdentifi
fierDictionary]
116418 ms | | | | | | | | | | | | | | | | | -[ACAccount aa_accountClass]
116418 ms | | | | | | | | | | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116418 ms | | | | | | | | | | | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116418 ms | | | | | | | | | | | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cc98f0 forAccount:0x282b408c0]
116418 ms | | | | | | | | | | | | | | | | | | | +[AADataclassManager sharedManager]
116418 ms | | | | | | | | | | | | | | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cc98f0]
116418 ms | | | | | | | | | | | | | | | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cc98f0]
116418 ms | | | | | | | | | | | | | | | | | | | | | +[AADataclassManager sharedManager]
116418 ms | | | | | | | | | | | | | | | | | | | | | -[AADataclassManager AppBundleIdentifierF
orDataclass:0x281cc98f0]
116418 ms | | | | | | | | | | | | | | | | | | | | | | +[AADataclassManager AppBundleIdentifi
fierDictionary]
116419 ms | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount aa_accountClass]
116419 ms | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116419 ms | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116419 ms | | | | | | | | | | | | | | | | | | | | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
ccbc90 forAccount:0x282b408c0]

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116419 ms | | | | | | | +[AADataclassManager sharedManager]
116419 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281ccbc90]
116419 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281ccbc90]
116419 ms | | | | | | | +[AADataclassManager sharedManager]
116419 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281ccbc90]
116419 ms | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116420 ms | | | | | | | -[ACAccount aa_accountClass]
116420 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116421 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116421 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cca6a0 forAccount:0x282b408c0]
116421 ms | | | | | | | +[AADataclassManager sharedManager]
116421 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cca6a0]
116421 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cca6a0]
116421 ms | | | | | | | +[AADataclassManager sharedManager]
116421 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281cca6a0]
116421 ms | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116421 ms | | | | | | | -[ACAccount aa_accountClass]
116421 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116421 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116421 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
ce5740 forAccount:0x282b408c0]
116421 ms | | | | | | | +[AADataclassManager sharedManager]
116421 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281ce5740]
116421 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281ce5740]
116421 ms | | | | | | | +[AADataclassManager sharedManager]
116421 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281ce5740]
116421 ms | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116421 ms | | | | | | | -[ACAccount aa_accountClass]
116421 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116421 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116421 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7e9940 forAccount:0x282b408c0]
116421 ms | | | | | | | +[AADataclassManager sharedManager]
116421 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807e9940]
116421 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807e9940]

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116421 ms | | | | | | | +[AADataclassManager sharedManager]
116421 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x2807e9940]
116421 ms | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116421 ms | | | | | | | -[ACAccount aa_accountClass]
116421 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116421 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116421 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x280
7ea880 forAccount:0x282b408c0]
116421 ms | | | | | | | +[AADataclassManager sharedManager]
116421 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x2807ea880]
116421 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x2807ea880]
116421 ms | | | | | | | +[AADataclassManager sharedManager]
116421 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x2807ea880]
116421 ms | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116421 ms | | | | | | | -[ACAccount aa_accountClass]
116421 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116421 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116421 ms | | | | | | | -[AADataclassManager shouldProvisionDataclass:0x281
cc8ba0 forAccount:0x282b408c0]
116421 ms | | | | | | | +[AADataclassManager sharedManager]
116421 ms | | | | | | | -[AADataclassManager isSystemAppRestrictedOrRe
movedForDataclass:0x281cc8ba0]
116421 ms | | | | | | | -[AADataclassManager _isRestrictedForData
class:0x281cc8ba0]
116421 ms | | | | | | | +[AADataclassManager sharedManager]
116421 ms | | | | | | | -[AADataclassManager appBundleIdentifierF
orDataclass:0x281cc8ba0]
116421 ms | | | | | | | +[AADataclassManager appBundleIdentifi
erDictionary]
116421 ms | | | | | | | -[ACAccount aa_accountClass]
116421 ms | | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8
b42c10]
116421 ms | | | | | | | -[ACAccount accountPropertyForKey:0x
1e8b42c10]
116421 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x2807e9d40]
116421 ms | | | | | | | -[ACAccount accountStore]
116421 ms | | | | | | | +[ACAccountStore defaultStore]
116421 ms | | | | | | | -[ACAccountStore provisionedDataclassesForAccount:0
x282b408c0 error:0x170482160]
116421 ms | | | | | | | -[ACAccount description]
116421 ms | | | | | | | -[ACAccount username]
116421 ms | | | | | | | -[ACAccount _useParentForCredentials
]
116421 ms | | | | | | | -[ACAccount authenticationType]
116422 ms | | | | | | | -[ACAccount identifier]
116422 ms | | | | | | | -[ACAccountStore remoteAccountStoreSession]

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116422 ms | | | | | | | -[ACTimedExpirer scheduleExpiration:0x170
481f00]
116422 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
116422 ms | | | | | | | -[ACRemoteAccountStoreSession synchronousRemot
eObjectProxyWithErrorHandler:0x170481ee0]
116422 ms | | | | | | | -[ACRemoteAccountStoreSession _connection
]
116422 ms | | | | | | | -[ACAccount identifier]
116423 ms | | | | | | | -[ACTrackedSet init]
116423 ms | | | | | | | | -[ACTrackedSet initWithObjects:0x0 count:0x0]
116423 ms | | | | | | | -[ACMutableTrackedSet addObject:0x2807e9d40]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x2807e8600]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x2807e8600]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x281cc9aa0]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x281cc9aa0]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x281ccaaf0]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x281ccaaf0]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x2807e8400]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x2807e8400]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x281cc9ef0]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x281cc9ef0]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x281cc7e70]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x281cc7e70]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x2807e8100]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x2807e8100]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x1e7416ab8]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x1e7416ab8]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x281cc9260]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x281cc9260]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x2807ea3c0]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x2807ea3c0]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x281cdAAF0]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x281cdAAF0]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x281cdA730]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x281cdA730]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x2807e8a40]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x2807e8a40]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x281cc8930]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x281cc8930]
116423 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417dd8]
116423 ms | | | | | | | -[ACAccount setProvisioned:0x1 forDataclass:0x281ccbAE0]
116423 ms | | | | | | | | -[ACMutableTrackedSet addObject:0x281ccbAE0]

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116424 ms | | | | | | -[ACAccount parentAccount]
116424 ms | | | | | | -[ACAccount accountStore]
116424 ms | | | | | | | +[ACAccountStore defaultStore]
116424 ms | | | | | | -[ACAccountStore enabledDataclassesForAccount:0x282
b408c0 error:0x170482198]
116424 ms | | | | | | | -[ACAccount description]
116424 ms | | | | | | | | -[ACAccount username]
116424 ms | | | | | | | | | -[ACAccount _useParentForCredentials
]
116424 ms | | | | | | | | | | -[ACAccount authenticationType]
116424 ms | | | | | | | | | | | -[ACAccount identifier]
116424 ms | | | | | | | | | | -[ACAccountStore remoteAccountStoreSession]
116424 ms | | | | | | | | | | | -[ACTimedExpirer scheduleExpiration:0x170
481f30]
116424 ms | | | | | | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
116424 ms | | | | | | | | | | | -[ACRemoteAccountStoreSession synchronousRemot
eObjectProxyWithErrorHandler:0x170481f10]
116424 ms | | | | | | | | | | | | -[ACRemoteAccountStoreSession _connection
]
116424 ms | | | | | | | | | | | | | -[ACAccount identifier]
116425 ms | | | | | | | | | | | | -[ACAccount provisionedDataclasses]
116425 ms | | | | | | | | | | | | | -[ACAccount parentAccount]
116425 ms | | | | | | | | | | | | | -[ACAccount aa_updateTokensWithProvisioningResponse:0x28
3126260]
116425 ms | | | | | | | | | | | | | | -[AAAuthenticationResponse authToken]
116425 ms | | | | | | | | | | | | | | -[ACAccount aa_setAuthToken:0x282b2d960]
116425 ms | | | | | | | | | | | | | | | -[ACAccount credential]
116425 ms | | | | | | | | | | | | | | | | -[ACAccount credentialWithError:0x0]
116425 ms | | | | | | | | | | | | | | | | | -[ACAccount _useParentForCredentials
]
116425 ms | | | | | | | | | | | | | | | | | | -[ACAccount authenticationType]
116425 ms | | | | | | | | | | | | | | | | | | | -[ACAccountCredential token]
116425 ms | | | | | | | | | | | | | | | | | | | | -[ACAccountCredential credentialItemForKe
y:0x1e74190b8]
116425 ms | | | | | | | | | | | | | | | | | | | | -[ACAccount credential]
116425 ms | | | | | | | | | | | | | | | | | | | | | -[ACAccount credentialWithError:0x0]
116425 ms | | | | | | | | | | | | | | | | | | | | | | -[ACAccount _useParentForCredentials
]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount authenticationType]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount credential]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount credentialWithError:0x0]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount _useParentForCredentials
]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount authenticationType]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountCredential setToken:0x282b2d960]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountCredential setCredentialItem:0
x282b2d960 forKey:0x1e74190b8]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACZeroingString initWithString:0x2
82b2d960]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountCredential _markPropertyD
irty:0x1e7419578]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount _markCredentialDirt
y]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount _markPropertyD
irty:0x1e7417d98]
116425 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount _unsafe_m

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arkPropertyDirty:0x1e7417d98]
116426 ms | | | | | | | -[ACAccount setAuthenticated:0x1]
116426 ms | | | | | | | | -[ACAccount _useParentForCredentials]
116426 ms | | | | | | | | | -[ACAccount authenticationType]
116426 ms | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1
e7417d78]
116426 ms | | | | | | | | | -[ACAccount setLastCredentialRenewalRejec
tionDate:0x0]
116426 ms | | | | | | | | | | -[ACAccount _useParentForCredentials
]
116426 ms | | | | | | | | | | | -[ACAccount authenticationType]
116426 ms | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirt
y:0x1e7417ed8]
116426 ms | | | | | | | | | | | | -[AAAuthenticationResponse mapsToken]
116426 ms | | | | | | | | | | | | | -[ACAccount aa_setMapsToken:0x282b2da40]
116426 ms | | | | | | | | | | | | | | -[ACAccount credential]
116426 ms | | | | | | | | | | | | | | | -[ACAccount credentialWithError:0x0]
116426 ms | | | | | | | | | | | | | | | | -[ACAccount _useParentForCredentials
]
116426 ms | | | | | | | | | | | | | | | | | -[ACAccount authenticationType]
116426 ms | | | | | | | | | | | | | | | | | | -[ACAccountCredential mapsToken]
116426 ms | | | | | | | | | | | | | | | | | | | -[ACAccountCredential credentialItemForKe
y:0x1e7419278]
116426 ms | | | | | | | | | | | | | | | | | | | -[ACAccount credential]
116426 ms | | | | | | | | | | | | | | | | | | | | -[ACAccount credentialWithError:0x0]
116426 ms | | | | | | | | | | | | | | | | | | | | | -[ACAccount _useParentForCredentials
]
116426 ms | | | | | | | | | | | | | | | | | | | | | -[ACAccount authenticationType]
116426 ms | | | | | | | | | | | | | | | | | | | | | | -[ACAccount credential]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount credentialWithError:0x0]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount _useParentForCredentials
]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount authenticationType]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountCredential setMapsToken:0x282b2da40
]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountCredential setCredentialItem:0
x282b2da40 forKey:0x1e7419278]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACZeroingString initWithString:0x2
82b2da40]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountCredential _markPropertyD
irty:0x1e7419578]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount _markCredentialDirt
y]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount _markPropertyD
irty:0x1e7417d98]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount _unsafe_m
arkPropertyDirty:0x1e7417d98]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[AAAuthenticationResponse mdmServerToken]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[AAProvisioningResponse searchPartyToken]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount credential]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount credentialWithError:0x0]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount _useParentForCredentials]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount authenticationType]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountCredential setCredentialItem:0x282b2d340
ForKey:0x1e74193f8]
116426 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACZeroingString initWithString:0x282b2d340]

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116426 ms | | | | | | | -[ACAccountCredential _markPropertyDirty:0x1e7
419578]
116426 ms | | | | | | | -[ACAccount _markCredentialDirty]
116426 ms | | | | | | | | -[ACAccount _markPropertyDirty:0x1e7
417d98]
116426 ms | | | | | | | | | -[ACAccount _unsafe_markPropert
yDirty:0x1e7417d98]
116426 ms | | | | | | | -[AAProvisioningResponse keyTransparencyToken]
116426 ms | | | | | | | -[ACAccount credential]
116426 ms | | | | | | | | -[ACAccount credentialWithError:0x0]
116426 ms | | | | | | | | | -[ACAccount _useParentForCredentials]
116426 ms | | | | | | | | | -[ACAccount authenticationType]
116426 ms | | | | | | | -[ACAccountCredential setCredentialItem:0x282b2c9a0
forKey:0x1e7419418]
116426 ms | | | | | | | | -[ACZeroingString initWithString:0x282b2c9a0]
116426 ms | | | | | | | -[ACAccountCredential _markPropertyDirty:0x1e7
419578]
116426 ms | | | | | | | | | -[ACAccount _markCredentialDirty]
116426 ms | | | | | | | | | | -[ACAccount _markPropertyDirty:0x1e7
417d98]
116426 ms | | | | | | | | | | | -[ACAccount _unsafe_markPropert
yDirty:0x1e7417d98]
116426 ms | | | | | | | | | | | | -[AAAAuthenticationResponse cloudKitToken]
116426 ms | | | | | | | | | | -[ACAccount credential]
116426 ms | | | | | | | | | | | -[ACAccount credentialWithError:0x0]
116426 ms | | | | | | | | | | | | -[ACAccount _useParentForCredentials]
116426 ms | | | | | | | | | | | | -[ACAccount authenticationType]
116426 ms | | | | | | | | | -[ACAccountCredential setCredentialItem:0x282b2df80
forKey:0x1e7419318]
116426 ms | | | | | | | | | | -[ACZeroingString initWithString:0x282b2df80]
116426 ms | | | | | | | | -[ACAccountCredential _markPropertyDirty:0x1e7
419578]
116426 ms | | | | | | | | | | | -[ACAccount _markCredentialDirty]
116426 ms | | | | | | | | | | | | -[ACAccount _markPropertyDirty:0x1e7
417d98]
116426 ms | | | | | | | | | | | | | -[ACAccount _unsafe_markPropert
yDirty:0x1e7417d98]
116426 ms | | | | | | | | | | | | | -[ACAccount aa_cloudKitAccount]
116426 ms | | | | | | | | | | | | | -[ACAccount childAccountsWithAccountTypeIdentifi
fier:0x1e7418a58]
116426 ms | | | | | | | | | | | | | | -[ACAccount accountStore]
116426 ms | | | | | | | | | | | | | | | +[ACAccountStore defaultStore]
116426 ms | | | | | | | | | | | | | | | -[ACAccountStore childAccountsForAccount:
0x282b408c0 withTypeIdentifier:0x1e7418a58]
116427 ms | | | | | | | | | | | | | | | | -[ACAccount description]
116427 ms | | | | | | | | | | | | | | | | | -[ACAccount username]
116427 ms | | | | | | | | | | | | | | | | | | -[ACAccount _useParentForC
redentials]
116427 ms | | | | | | | | | | | | | | | | | | | -[ACAccount authenticationType]
116427 ms | | | | | | | | | | | | | | | | | | | | -[ACAccount identifier]
116427 ms | | | | | | | | | | | | | | | | | | | | | -[ACAccountStore remoteAccountStores
ession]
116427 ms | | | | | | | | | | | | | | | | | | | | | | -[ACTimedExpirer scheduleExpira
tion:0x170481d00]
116427 ms | | | | | | | | | | | | | | | | | | | | | | | -[ACTimedExpirer _unsafeCa

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ncelTimer]
116427 ms | | | | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x170481ce0]
116427 ms | | | | | | | | | -[ACRemoteAccountStoreSession _connection]
116427 ms | | | | | | | | | -[ACAccount identifier]
116427 ms | | | | | | | | | -[ACAccount username]
116427 ms | | | | | | | | | -[ACAccount _useParentForCredentials]
116427 ms | | | | | | | | | -[ACAccount authenticationType]
116427 ms | | | | | | | | | +[AAKeychainManager initialize]
116432 ms | | | | | | | | | +[AAKeychainManager setPassword:0x282b2df80 forServiceName:0x1e8b42d10 username:0x281d07cc0 accessGroup:0x1e8b42d30]
116432 ms | | | | | | | | | | +[AAKeychainManager passwordForServiceName:0x1e8b42d10 username:0x281d07cc0 accessGroup:0x1e8b42d30]
116440 ms | | | | | | | | | | -[AAAAuthenticationResponse fmipToken]
116440 ms | | | | | | | | | | -[ACAccount credential]
116440 ms | | | | | | | | | | | -[ACAccount credentialWithError:0x0]
116440 ms | | | | | | | | | | | -[ACAccount _useParentForCredentials]
116440 ms | | | | | | | | | | | -[ACAccount authenticationType]
116440 ms | | | | | | | | | | | -[ACAccountCredential setFindMyiPhoneToken:0x282b2db20]
116440 ms | | | | | | | | | | | -[ACAccountCredential setCredentialItem:0x282b2db20 forKey:0x1e7419218]
116440 ms | | | | | | | | | | | | -[ACZeroingString initWithString:0x282b2db20]
116440 ms | | | | | | | | | | | | | -[ACAccountCredential _markPropertyDirty:0x1e7419578]
116440 ms | | | | | | | | | | | | | | -[ACAccount _markCredentialDirty]
116440 ms | | | | | | | | | | | | | | -[ACAccount _markPropertyDirty:0x1e7417d98]
116440 ms | | | | | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417d98]
116440 ms | | | | | | | | | | | | | | -[AAProvisioningResponse fmipAppToken]
116440 ms | | | | | | | | | | | | | -[ACAccount credential]
116440 ms | | | | | | | | | | | | | | -[ACAccount credentialWithError:0x0]
116440 ms | | | | | | | | | | | | | | -[ACAccount _useParentForCredentials]
116440 ms | | | | | | | | | | | | | | -[ACAccount authenticationType]
116440 ms | | | | | | | | | | | | | | -[ACAccountCredential setCredentialItem:0x282b2dc0 forKey:0x1e7419238]
116440 ms | | | | | | | | | | | | | | | -[ACZeroingString initWithString:0x282b2dc0]
116440 ms | | | | | | | | | | | | | | | -[ACAccountCredential _markPropertyDirty:0x1e7419578]
116440 ms | | | | | | | | | | | | | | | | -[ACAccount _markCredentialDirty]
116440 ms | | | | | | | | | | | | | | | | -[ACAccount _markPropertyDirty:0x1e7417d98]
116440 ms | | | | | | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417d98]
116440 ms | | | | | | | | | | | | | | | -[AAProvisioningResponse fmipSiriToken]
116440 ms | | | | | | | | | | | | | | -[ACAccount credential]
116440 ms | | | | | | | | | | | | | | | -[ACAccount credentialWithError:0x0]
116440 ms | | | | | | | | | | | | | | | -[ACAccount _useParentForCredentials]
116440 ms | | | | | | | | | | | | | | | -[ACAccount authenticationType]
116440 ms | | | | | | | | | | | | | | | -[ACAccountCredential setCredentialItem:0x282b2dea0 forKey:0x1e7419258]
116440 ms | | | | | | | | | | | | | | | | -[ACZeroingString initWithString:0x282b2dea0]
116441 ms | | | | | | | | | | | | | | | | | -[ACAccountCredential _markPropertyDirty:0x1e7

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419578]
116441 ms | | | | | | | -[ACAccount _markCredentialDirty]
116441 ms | | | | | | | -[ACAccount _markPropertyDirty:0x1e7
417d98]
116441 ms | | | | | | | -[ACAccount _unsafe_markPropert
yDirty:0x1e7417d98]
116441 ms | | | | | | -[AAAAuthenticationResponse fmfToken]
116441 ms | | | | | -[ACAccount credential]
116441 ms | | | | | | -[ACAccount credentialWithError:0x0]
116441 ms | | | | | | | -[ACAccount _useParentForCredentials]
116441 ms | | | | | | | | -[ACAccount authenticationType]
116441 ms | | | | | | | -[ACAccountCredential setCredentialItem:0x282b2d880
forKey:0x1e74192b8]
116441 ms | | | | | | | -[ACZeroingString initWithString:0x282b2d880]
116441 ms | | | | | | | -[ACAccountCredential _markPropertyDirty:0x1e7
419578]
116441 ms | | | | | | | -[ACAccount _markCredentialDirty]
116441 ms | | | | | | | | -[ACAccount _markPropertyDirty:0x1e7
417d98]
116441 ms | | | | | | | | -[ACAccount _unsafe_markPropert
yDirty:0x1e7417d98]
116441 ms | | | | | | | -[AAAAuthenticationResponse fmfAppToken]
116441 ms | | | | | | -[ACAccount credential]
116441 ms | | | | | | | -[ACAccount credentialWithError:0x0]
116441 ms | | | | | | | | -[ACAccount _useParentForCredentials]
116441 ms | | | | | | | | | -[ACAccount authenticationType]
116441 ms | | | | | | | -[ACAccountCredential setCredentialItem:0x282b2e680
forKey:0x1e74192d8]
116441 ms | | | | | | | -[ACZeroingString initWithString:0x282b2e680]
116441 ms | | | | | | | -[ACAccountCredential _markPropertyDirty:0x1e7
419578]
116441 ms | | | | | | | -[ACAccount _markCredentialDirty]
116441 ms | | | | | | | | -[ACAccount _markPropertyDirty:0x1e7
417d98]
116441 ms | | | | | | | | -[ACAccount _unsafe_markPropert
yDirty:0x1e7417d98]
116441 ms | | | | | | | -[AASignInFlowController _verifyLoginResponseForiCloudAccount
:0x282b408c0 withSuccess:0x1 error:0x0 completion:0x2807d6400]
116441 ms | | | | | | | -[ACAccount aa_password]
116441 ms | | | | | | | | -[ACAccount credential]
116441 ms | | | | | | | | | -[ACAccount credentialWithError:0x0]
116441 ms | | | | | | | | | | -[ACAccount _useParentForCredentials]
116441 ms | | | | | | | | | | | -[ACAccount authenticationType]
116441 ms | | | | | | | | -[ACAccountCredential password]
116441 ms | | | | | | | | | -[ACAccountCredential credentialItemForKey:0x1
e7419098]
116441 ms | | | | | | | | | -[ACZeroingString length]
116441 ms | | | | | | | | | -[ACZeroingString getCharacters:0x120370c
70 range:0x0]
116441 ms | | | | | | | | | -[ACAccount setAuthenticated:0x0]
116441 ms | | | | | | | | | | -[ACAccount _useParentForCredentials]
116441 ms | | | | | | | | | | | -[ACAccount authenticationType]
116441 ms | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417d78]
116441 ms | | | | | | | | | | | | -[AASignInFlowController _validateAndEnrollCDPStateForAc
count:0x282b408c0 withCDPContext:0x282558580 completion:0x1704823b8]
116441 ms | | | | | | | | | | | | | -[ACAccount setWarmingUp:0x1]

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116441 ms | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417
eb8]
116441 ms | | | | | | -[ACAccount setEnabled:0x1 forDataclass:0x1e7416758
]
116441 ms | | | | | | | -[ACAccount parentAccount]
116441 ms | | | | | | | -[ACAccount accountStore]
116441 ms | | | | | | | | +[ACAccountStore defaultStore]
116441 ms | | | | | | | -[ACAccountStore enabledDataclassesForAccount:
0x282b408c0 error:0x170482220]
116441 ms | | | | | | | | -[ACAccount description]
116441 ms | | | | | | | | | -[ACAccount username]
116441 ms | | | | | | | | | | -[ACAccount _useParentForCreden
tials]
116441 ms | | | | | | | | | | | -[ACAccount authentication
Type]
116441 ms | | | | | | | | | | | | -[ACAccount identifier]
116441 ms | | | | | | | | | | | -[ACAccountStore remoteAccountStoreSessio
n]
116441 ms | | | | | | | | | | | | -[ACTimedExpirer scheduleExpiration:
0x170481fc0]
116441 ms | | | | | | | | | | | | | -[ACTimedExpirer _unsafeCancelT
imer]
116441 ms | | | | | | | | | | | | | -[ACRemoteAccountStoreSession synchronous
RemoteObjectProxyWithErrorHandler:0x170481fa0]
116441 ms | | | | | | | | | | | | | -[ACRemoteAccountStoreSession _conne
ction]
116441 ms | | | | | | | | | | | | | | -[ACAccount identifier]
116442 ms | | | | | | | | | | | | | -[ACTrackedSet init]
116442 ms | | | | | | | | | | | | | | -[ACTrackedSet initWithObjects:0x0 count:
0x0]
116442 ms | | | | | | | | | | | | | | -[ACMutableTrackedSet addObject:0x1e7416758]
116442 ms | | | | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417
db8]
116442 ms | | | | | | | | | | | | | | | -[ACAccount isProvisionedForDataclass:0x1e7416798]
116442 ms | | | | | | | | | | | | | | | | -[ACAccount provisionedDataclasses]
116442 ms | | | | | | | | | | | | | | | | | -[ACAccount parentAccount]
116442 ms | | | | | | | | | | | | | | | | | | -[ACAccount setEnabled:0x1 forDataclass:0x1e7416798
]
116442 ms | | | | | | | | | | | | | | | | | | | -[ACAccount parentAccount]
116442 ms | | | | | | | | | | | | | | | | | | | | -[ACMutableTrackedSet addObject:0x1e7416798]
116442 ms | | | | | | | | | | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417
db8]
116442 ms | | | | | | | | | | | | | | | | | | | | | -[ACAccount setEnabled:0x1 forDataclass:0x1e74167b8
]
116442 ms | | | | | | | | | | | | | | | | | | | | | | -[ACAccount parentAccount]
116442 ms | | | | | | | | | | | | | | | | | | | | | | | -[ACMutableTrackedSet addObject:0x1e74167b8]
116442 ms | | | | | | | | | | | | | | | | | | | | | | -[ACAccount _unsafe_markPropertyDirty:0x1e7417
db8]
116442 ms | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountStore saveAccount:0x282b408c0 withComple
tionHandler:0x1704822a0]
116442 ms | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountStore _saveAccount:0x282b408c0 veri
fy:0x1 dataclassActions:0x0 completion:0x1704822a0]
116442 ms | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount accountType]
116442 ms | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType identifier]
116442 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount description]
116442 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount username]

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116442 ms | | | | | | | | | | | -[ACAccount _useParentForCreden
tials]
116442 ms | | | | | | | | | | | -[ACAccount authentication
Type]
116442 ms | | | | | | | | | | | | -[ACAccount identifier]
116442 ms | | | | | | | | | | | | -[ACAccount description]
116442 ms | | | | | | | | | | | | | -[ACAccount username]
116442 ms | | | | | | | | | | | | | -[ACAccount _useParentForCreden
tials]
116442 ms | | | | | | | | | | | | | -[ACAccount authentication
Type]
116442 ms | | | | | | | | | | | | | | -[ACAccount identifier]
116442 ms | | | | | | | | | | | | | | -[ACAccount isDirty]
116442 ms | | | | | | | | | | | | | | -[ACAccount accountType]
116442 ms | | | | | | | | | | | | | | -[ACAccountType identifier]
116442 ms | | | | | | | | | | | | | | -[ACAccountStore _checkSaveRateLimitForAc
countType:0x281d76580]
116442 ms | | | | | | | | | | | | | | -[ACAccountStore longLivedRemoteAccountSt
oreSession]
116442 ms | | | | | | | | | | | | | | | -[ACRemoteAccountStoreSession initWi
thListenerEndpoint:0x0 delegate:0x0]
116442 ms | | | | | | | | | | | | | | | | -[ACAccountStoreClientSideListe
ner initWithDelegate:0x0]
116442 ms | | | | | | | | | | | | | | | | | -[ACAccountStore effectiveBundleID]
116442 ms | | | | | | | | | | | | | | | | | -[ACRemoteAccountStoreSession setEff
ectiveBundleID:0x0]
116442 ms | | | | | | | | | | | | | | | | | | -[ACTimedExpirer scheduleExpiration:
0x170482030]
116442 ms | | | | | | | | | | | | | | | | | | | -[ACTimedExpirer _unsafeCancelT
imer]
116442 ms | | | | | | | | | | | | | | | | | | | -[ACRemoteAccountStoreSession remoteObjec
tProxyWithErrorHandler:0x170482010]
116442 ms | | | | | | | | | | | | | | | | | | | | -[ACRemoteAccountStoreSession _conne
ction]
116442 ms | | | | | | | | | | | | | | | | | | | | | -[ACTrackedXPCCConnection init]
116442 ms | | | | | | | | | | | | | | | | | | | | | +[ACRemoteAccountStoreInterface
XPCInterface]
116443 ms | | | | | | | | | | | | | | | | | | | | | | -[ACRemoteAccountStoreSession _
locked_configureRemoteAccountStoreWithConnection:0x282341900]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | -[ACAccount encodeWithCoder:0x101a84800]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType encodeWithCoder:0x10
1a84800]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType identifier]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType accountTypeDesc
ription]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType objectID]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType visibility]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType credentialProte
ctionPolicy]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType supportsAuthent
ication]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType supportsMultipl
eAccounts]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType owningBundleID]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountType isObsolete]
116443 ms | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | -[ACAccountCredential encodeWithCode

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jectForCoder:0x101a84800]
116444 ms | | | | | | | | | | -[ACZeroingString _allowsDirect
Encoding]
116444 ms | | | | | | | | | | -[ACZeroingString encodeWithCod
er:0x101a84800]
116444 ms | | | | | | | | | | -[ACZeroingString replacementOb
jectForCoder:0x101a84800]
116444 ms | | | | | | | | | | -[ACZeroingString _allowsDirect
Encoding]
116444 ms | | | | | | | | | | -[ACZeroingString encodeWithCod
er:0x101a84800]
116444 ms | | | | | | | | | | -[ACZeroingString replacementOb
jectForCoder:0x101a84800]
116444 ms | | | | | | | | | | -[ACZeroingString _allowsDirect
Encoding]
116444 ms | | | | | | | | | | -[ACZeroingString encodeWithCod
er:0x101a84800]
116444 ms | | | | | | | | | | -[ACZeroingString replacementOb
jectForCoder:0x101a84800]
116444 ms | | | | | | | | | | -[ACZeroingString _allowsDirect
Encoding]
116444 ms | | | | | | | | | | -[ACZeroingString encodeWithCod
er:0x101a84800]
116444 ms | | | | | | | | | | -[ACAccount accountProperties]
116444 ms | | | | | | | | | | -[ACAccount accountPropertiesTransfo
rmer]
116444 ms | | | | | | | | | | -[ACTrackedSet encodeWithCoder:0x101
a84800]
116444 ms | | | | | | | | | | -[ACTrackedSet encodeWithCoder:0x101
a84800]

/* TID 0xf107 */
118692 ms -[ACAccountStore dmc_visibleRemoteManagementAccounts]
118692 ms | -[ACAccountStore dmc_RemoteManagementAccounts]
118692 ms | | -[ACAccountStore dmc_RemoteManagementAccountType]
118692 ms | | | -[ACAccountStore accountTypeWithAccountTypeID:0x1e741
8c58]
118692 ms | | | | -[ACAccountStore accountTypeWithAccountTypeID:0x
1e7418c58 error:0x0]
/* TID 0x103 */
118692 ms -[ACNotificationRebroadcaster _accountStoreDidChange:0x281d109f0]
118692 ms -[ACAccountStore visibleTopLevelAccountsWithAccountTypeID:0x283c277
80 completion:0x16fd69d98]
118692 ms | -[ACAccountStore remoteAccountStoreSession]
118692 ms | | -[ACTimedExpirer scheduleExpiration:0x16fd69b90]
118692 ms | | | -[ACTimedExpirer _unsafeCancelTimer]
118692 ms | -[ACRemoteAccountStoreSession remoteObjectProxyWithErrorHandler:0x16fd6
9b70]
118692 ms | | -[ACRemoteAccountStoreSession _connection]
118693 ms -[AMSAccountsChangedObservable _accountStoreDidChange:0x281696a20]
118693 ms | +[AMSLogConfig sharedAccountsConfig]
118693 ms | -[AMSLogConfig OSLogObject]
118693 ms | | -[AMSLogConfig propertyAccessQueue]
118693 ms | | -[AMSLogConfig backingOSLogObject]
/* TID 0xf107 */
118693 ms | | | | -[ACAccountStore remoteAccountStoreSession]
118693 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x1701c64c
0]
118693 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0xc533 */
118693 ms -[AACloudServiceOwner accountForService:0x1ecb2df10]
118693 ms | +[AACloudServiceOwner _serviceTypeForPlatform]
118693 ms | -[ACAccountStore aa_primaryAppleAccount]

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118693 ms | | | -[ACAccountStore accountsWithAccountTypeIdentifiers:0x2810094b0 pr
eloadedProperties:0x0 error:0x0]
118693 ms | | | | -[ACAccountStore remoteAccountStoreSession]
118693 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e410]
118693 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118693 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxywit
hErrorHandler:0x16fe7e3f0]
118693 ms | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xf107 */
118693 ms | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x1701c64a0]
118693 ms | | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xc533 */
118694 ms +[ACAccountStore ams_sharedAccountStoreForMediaType:0x1e77eaeb0]
118694 ms | +[AMSUnitTests isRunningUnitTests]
118694 ms | +[ACAccountStore defaultStore]
/* TID 0xf107 */
118694 ms | | | | | -[ACAccountType setAccountStore:0x283916df0]
/* TID 0xc533 */
118694 ms -[ACAccountStore ams_activeiTunesAccount]
/* TID 0xf107 */
118694 ms | | | | | -[ACAccountType description]
118694 ms | | | | | | -[ACAccountType accountTypeDescription]
118694 ms | | | | | | -[ACAccountType identifier]
118694 ms | | | | -[ACAccountStore accountsWithAccountType:0x2839f4e00]
/* TID 0xc533 */
118694 ms | -[ACAccountStore ams_mediaType]
/* TID 0xf107 */
118694 ms | | | | -[ACAccountType description]
118694 ms | | | | | -[ACAccountType accountTypeDescription]
118694 ms | | | | | | -[ACAccountType identifier]
118694 ms | | | | -[ACAccountStore remoteAccountStoreSession]
118694 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x1701c6470]
118694 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118694 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxywit
hErrorHandler:0x1701c6450]
118694 ms | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xc533 */
118695 ms | | | +[MSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
118695 ms | | | | +[MSAccountStoreCache cacheAccessQueue]
/* TID 0xf107 */
118695 ms | | | | -[ACAccountType encodeWithCoder:0x101a84800]
118695 ms | | | | | -[ACAccountType identifier]
118695 ms | | | | | -[ACAccountType accountTypeDescription]
/* TID 0xc533 */
118695 ms | | | | +[MSAccountStoreCache cache]
118695 ms | | | | | +[MSAccountStoreCache cacheAccessQueue]
/* TID 0xf107 */
118695 ms | | | | | -[ACAccountType objectID]
118695 ms | | | | | -[ACAccountType visibility]
/* TID 0xc533 */
118695 ms | | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
/* TID 0xf107 */
118695 ms | | | | | -[ACAccountType credentialProtectionPolicy]
/* TID 0xc533 */
118695 ms | | | | | +[AMSUnitTests isRunningUnitTests]

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118695 ms | | | | | +[AMSProcessInfo defaultMediaTypeAccessQueue]
118695 ms | | | | -[ACAccountStore ams_iTunesAccounts]
118695 ms | | | | -[ACAccountStore ams_mediaType]
118695 ms | | | | +[AMSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
118695 ms | | | | | +[AMSAccountStoreCache cacheAccessQueue]
118695 ms | | | | | +[AMSAccountStoreCache cache]
118695 ms | | | | | +[AMSAccountStoreCache cacheAccessQueue]
/* TID 0xf107 */
118695 ms | | | | | -[ACAccountType supportsAuthentication]
/* TID 0xc533 */
118695 ms | | | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
118695 ms | | | | | | +[AMSUnitTests isRunningUnitTests]
/* TID 0xf107 */
118695 ms | | | | | | -[ACAccountType supportsMultipleAccounts]
118695 ms | | | | | | -[ACAccountType owningBundleID]
/* TID 0xc533 */
118695 ms | | | | | | +[AMSProcessInfo defaultMediaTypeAccessQueue]
/* TID 0xf107 */
118695 ms | | | | | | -[ACAccountType isObsolete]
/* TID 0xc533 */
118695 ms | | | | +[ACAccountStore ams_accountTypeIdentifierForMediaType:0x1e77eaeb0
]
118695 ms | | | | -[ACAccountStore _ams_accountsWithAccountTypeIdentifier:0x1e741887
8 options:0x1 error:0x16fe7e5c8]
118695 ms | | | | -[ACAccountStore _ams_accountTypeWithIdentifier:0x
1e7418878 error:0x16fe7e5c8]
118695 ms | | | | -[ACAccountStore accountTypeWithIdentifier:0x
1e7418878 error:0x16fe7e4e8]
118695 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
118695 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e28
0]
118695 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118695 ms | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x16fe7e260]
118695 ms | | | | | | | -[ACRemoteAccountStoreSession _connection]
118696 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118697 ms | | | | | | -[ACAccountType description]
118697 ms | | | | | | | -[ACAccountType accountTypeDescription]
118697 ms | | | | | | | -[ACAccountType identifier]
118697 ms | | | | | | -[ACAccountStore _ams_accountsWithAccountType:0x283928310 opt
ions:0x1 error:0x16fe7e5c8]
118697 ms | | | | | | -[ACAccountStore accountsWithAccountType:0x283928310 opt
ions:0x1 error:0x16fe7e548]
118697 ms | | | | | | | -[ACAccountType description]
118697 ms | | | | | | | | -[ACAccountType accountTypeDescription]
118697 ms | | | | | | | | -[ACAccountType identifier]
118697 ms | | | | | | -[ACAccountStore remoteAccountStoreSession]
118697 ms | | | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e21
0]
118697 ms | | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118697 ms | | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x16fe7e1f0]
118697 ms | | | | | | | | -[ACRemoteAccountStoreSession _connection]
118697 ms | | | | | | | | -[ACAccountType encodeWithCoder:0x101069e00]
118697 ms | | | | | | | | -[ACAccountType identifier]
118697 ms | | | | | | | | -[ACAccountType accountTypeDescription]

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118697 ms | | | | | | -[ACAccountType objectID]
118697 ms | | | | | | -[ACAccountType visibility]
118697 ms | | | | | | -[ACAccountType credentialProtectionPolicy]
118697 ms | | | | | | -[ACAccountType supportsAuthentication]
118697 ms | | | | | | -[ACAccountType supportsMultipleAccounts]
118697 ms | | | | | | -[ACAccountType owningBundleID]
118697 ms | | | | | | -[ACAccountType isObsolete]
118700 ms | | | | | -[ACAccount _setAccountStore:0x283916df0]
118701 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118701 ms | | | | | -[ACAccount _setAccountStore:0x283916df0]
118701 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118701 ms | | | | | -[ACAccount _setAccountStore:0x283916df0]
118701 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118701 ms | | | | | -[ACAccount description]
118701 ms | | | | | | -[ACAccount username]
118701 ms | | | | | | | -[ACAccount _useParentForCredentials]
118701 ms | | | | | | | | -[ACAccount authenticationType]
118701 ms | | | | | | -[ACAccount identifier]
118701 ms | | | | | -[ACAccount description]
118701 ms | | | | | | -[ACAccount username]
118701 ms | | | | | | | -[ACAccount _useParentForCredentials]
118701 ms | | | | | | | | -[ACAccount authenticationType]
118701 ms | | | | | | -[ACAccount identifier]
118701 ms | | | | | -[ACAccount description]
118701 ms | | | | | | -[ACAccount username]
118701 ms | | | | | | | -[ACAccount _useParentForCredentials]
118701 ms | | | | | | | | -[ACAccount authenticationType]
118701 ms | | | | | | -[ACAccount identifier]
118701 ms | | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118701 ms | | | | | | -[ACAccount isActive]
118701 ms | | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118701 ms | | | | | | -[ACAccount isActive]
118701 ms | | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118701 ms | | | | | | -[ACAccount isActive]
/* TID 0xf107 */
118705 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807daac0]
118708 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807c0b80]
/* TID 0x103 */
118709 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x281697420]
118709 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807daac0]
118709 ms -[ACAccount credentialsChanged:0x281697420]
118709 ms | -[ACAccount identifier]
118709 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x281697420]
118709 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807c0b80]
118709 ms -[ACAccount credentialsChanged:0x281697420]
118709 ms | -[ACAccount identifier]
/* TID 0xf107 */
118721 ms -[ACAccountStore dmc_visibleRemoteManagementAccounts]
/* TID 0x103 */
118721 ms -[ACNotificationRebroadcaster _accountStoreDidChange:0x281d27c30]
118722 ms -[ACAccountStore visibleTopLevelAccountsWithAccountTypeIdentifiers:0x283c2b4
00 completion:0x16fd69d98]
118722 ms | -[ACAccountStore remoteAccountStoreSession]
118722 ms | | -[ACTimedExpirer scheduleExpiration:0x16fd69b90]

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118722 ms | | | -[ACTimedExpirer _unsafeCancelTimer]
118722 ms | -[ACRemoteAccountStoreSession remoteObjectProxyWithErrorHandler:0x16fd6
9b70]
118722 ms | | -[ACRemoteAccountStoreSession _connection]
118722 ms -[AMSAccountsChangedObservable _accountStoreDidChange:0x281696260]
118722 ms | +[AMSLogConfig sharedAccountsConfig]
118722 ms | -[AMSLogConfig OSLogObject]
118722 ms | | -[AMSLogConfig propertyAccessQueue]
118722 ms | | -[AMSLogConfig backingOSLogObject]
/* TID 0xf107 */
118724 ms | -[ACAccountStore dmc_RemoteManagementAccounts]
118724 ms | | -[ACAccountStore dmc_RemoteManagementAccountType]
118724 ms | | | -[ACAccountStore accountTypeWithAccountTypeID:0x1e741
8c58]
118724 ms | | | | -[ACAccountStore accountTypeWithAccountTypeID:0x
1e7418c58 error:0x0]
118724 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
118724 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x1701c64c
0]
118724 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0xec47 */
118724 ms -[AACloudServiceOwner accountForService:0x1ecb2df10]
118724 ms | +[AACloudServiceOwner _serviceTypeForPlatform]
118724 ms | -[ACAccountStore aa_primaryAppleAccount]
118724 ms | | -[ACAccountStore accountsWithAccountTypeID:0x281008fb0 pr
eloadedProperties:0x0 error:0x0]
118724 ms | | | -[ACAccountStore remoteAccountStoreSession]
/* TID 0xf107 */
118724 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x1701c64a0]
/* TID 0xec47 */
118724 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x17059a410]
118724 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0xf107 */
118724 ms | | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xec47 */
118724 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWit
hErrorHandler:0x17059a3f0]
118724 ms | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xf107 */
118725 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118725 ms | | | | | | -[ACAccountType description]
118725 ms | | | | | | | -[ACAccountType accountTypeDescription]
118725 ms | | | | | | | -[ACAccountType identifier]
118725 ms | | | | -[ACAccountStore accountsWithAccountType:0x2839220d0]
118725 ms | | | | | -[ACAccountType description]
118725 ms | | | | | | -[ACAccountType accountTypeDescription]
118725 ms | | | | | | -[ACAccountType identifier]
118725 ms | | | | -[ACAccountStore remoteAccountStoreSession]
118725 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x1701c6470]
118725 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118725 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWit
hErrorHandler:0x1701c6450]
118725 ms | | | | | -[ACRemoteAccountStoreSession _connection]
118725 ms | | | | -[ACAccountType encodeWithCoder:0x102837400]
118725 ms | | | | | -[ACAccountType identifier]

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118725 ms | | | | | -[ACAccountType accountTypeDescription]
118725 ms | | | | | -[ACAccountType objectID]
118725 ms | | | | | -[ACAccountType visibility]
118725 ms | | | | | -[ACAccountType credentialProtectionPolicy]
118725 ms | | | | | -[ACAccountType supportsAuthentication]

/* TID 0xec47 */
118725 ms +[ACAccountStore ams_sharedAccountStoreForMediaType:0x1e77eaeb0]
118725 ms | +[AMSUnitTests isRunningUnitTests]
118725 ms | +[ACAccountStore defaultStore]
118725 ms -[ACAccountStore ams_activeiTunesAccount]
118725 ms | -[ACAccountStore ams_mediaType]
118725 ms | | +[AMSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
118725 ms | | | +[AMSAccountStoreCache cacheAccessQueue]
118725 ms | | | +[AMSAccountStoreCache cache]
118725 ms | | | | +[AMSAccountStoreCache cacheAccessQueue]
118725 ms | | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
118725 ms | | | | | +[AMSUnitTests isRunningUnitTests]
118725 ms | | | | | +[AMSProcessInfo defaultMediaTypeAccessQueue]
118726 ms | -[ACAccountStore ams_iTunesAccounts]
118726 ms | | -[ACAccountStore ams_mediaType]
118726 ms | | | +[AMSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
118726 ms | | | | +[AMSAccountStoreCache cacheAccessQueue]
118726 ms | | | | +[AMSAccountStoreCache cache]
118726 ms | | | | | +[AMSAccountStoreCache cacheAccessQueue]
118726 ms | | | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
118726 ms | | | | | | +[AMSUnitTests isRunningUnitTests]
118726 ms | | | | | | +[AMSProcessInfo defaultMediaTypeAccessQueue]
118726 ms | | | | +[ACAccountStore ams_accountTypeIdentifierForMediaType:0x1e77eaeb0]
]

118726 ms | | | -[ACAccountStore _ams_accountsWithAccountTypeIdentifier:0x1e741887
8 options:0x1 error:0x17059a5c8]
118726 ms | | | | -[ACAccountStore _ams_accountTypeWithAccountTypeIdentifier:0x
1e7418878 error:0x17059a5c8]
118726 ms | | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x
1e7418878 error:0x17059a4e8]
118726 ms | | | | | | -[ACAccountStore remoteAccountStoreSession]
118726 ms | | | | | | | -[ACTimedExpirer scheduleExpiration:0x17059a28
0]
118726 ms | | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]

/* TID 0xf107 */
118726 ms | | | | | -[ACAccountType supportsMultipleAccounts]
118726 ms | | | | | -[ACAccountType owningBundleID]
118726 ms | | | | | -[ACAccountType isObsolete]

/* TID 0xec47 */
118726 ms | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x17059a260]
118726 ms | | | | | | | -[ACRemoteAccountStoreSession _connection]
118727 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118727 ms | | | | | | | -[ACAccountType description]
118727 ms | | | | | | | | -[ACAccountType accountTypeDescription]
118727 ms | | | | | | | | | -[ACAccountType identifier]
118727 ms | | | | | | -[ACAccountStore _ams_accountsWithAccountType:0x2839f55e0 opt
ions:0x1 error:0x17059a5c8]
118727 ms | | | | | | | -[ACAccountStore accountsWithAccountType:0x2839f55e0 opt
ions:0x1 error:0x17059a548]
118727 ms | | | | | | | | -[ACAccountType description]

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118727 ms | | | | | | -[ACAccountType accountTypeDescription]
118727 ms | | | | | | -[ACAccountType identifier]
118727 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
118727 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x17059a21
0]
118727 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118727 ms | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x17059a1f0]
118727 ms | | | | | | | | -[ACRemoteAccountStoreSession _connection]
118727 ms | | | | | | | -[ACAccountType encodeWithCoder:0x102837400]
118727 ms | | | | | | | | -[ACAccountType identifier]
118727 ms | | | | | | | | -[ACAccountType accountTypeDescription]
118728 ms | | | | | | | | -[ACAccountType objectID]
118728 ms | | | | | | | | -[ACAccountType visibility]
118728 ms | | | | | | | | -[ACAccountType credentialProtectionPolicy]
118728 ms | | | | | | | | -[ACAccountType supportsAuthentication]
118728 ms | | | | | | | | -[ACAccountType supportsMultipleAccounts]
118728 ms | | | | | | | | -[ACAccountType owningBundleID]
118728 ms | | | | | | | | -[ACAccountType isObsolete]
118732 ms | | | | | | | | -[ACAccount _setAccountStore:0x283916df0]
118732 ms | | | | | | | | | -[ACAccount setAccountStore:0x283916df0]
118732 ms | | | | | | | | -[ACAccount _setAccountStore:0x283916df0]
118732 ms | | | | | | | | | -[ACAccount setAccountStore:0x283916df0]
118732 ms | | | | | | | | -[ACAccount _setAccountStore:0x283916df0]
118732 ms | | | | | | | | | -[ACAccount setAccountStore:0x283916df0]
118732 ms | | | | | | | | -[ACAccount description]
118732 ms | | | | | | | | | -[ACAccount username]
118732 ms | | | | | | | | | | -[ACAccount _useParentForCredentials]
118732 ms | | | | | | | | | | | -[ACAccount authenticationType]
118732 ms | | | | | | | | | | -[ACAccount identifier]
118732 ms | | | | | | | | | -[ACAccount description]
118732 ms | | | | | | | | | | -[ACAccount username]
118732 ms | | | | | | | | | | | -[ACAccount _useParentForCredentials]
118732 ms | | | | | | | | | | | | -[ACAccount authenticationType]
118732 ms | | | | | | | | | | -[ACAccount identifier]
118732 ms | | | | | | | | | -[ACAccount description]
118732 ms | | | | | | | | | | -[ACAccount username]
118732 ms | | | | | | | | | | | -[ACAccount _useParentForCredentials]
118732 ms | | | | | | | | | | | | -[ACAccount authenticationType]
118732 ms | | | | | | | | | | | -[ACAccount identifier]
118732 ms | | | | | | | | | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118732 ms | | | | | | | | | | | | | -[ACAccount isActive]
118732 ms | | | | | | | | | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118732 ms | | | | | | | | | | | | | -[ACAccount isActive]
118732 ms | | | | | | | | | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118732 ms | | | | | | | | | | | | | -[ACAccount isActive]
/* TID 0xf107 */
118768 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807dae40]
/* TID 0x103 */
118768 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169d2c0]
118768 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dae40]
118768 ms -[ACAccount credentialsChanged:0x28169d2c0]
118768 ms | -[ACAccount identifier]
/* TID 0xf107 */
118783 ms -[ACAccountStore dmc_visibleRemoteManagementAccounts]

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/* TID 0x103 */
118783 ms -[ACNotificationRebroadcaster _accountStoreDidChange:0x281d08ea0]
118783 ms -[ACAccountStore visibleTopLevelAccountsWithAccountTypeIdentifiers:0x283cf80
80 completion:0x16fd69d98]
118783 ms | -[ACAccountStore remoteAccountStoreSession]
118783 ms | | -[ACTimedExpirer scheduleExpiration:0x16fd69b90]
118783 ms | | | -[ACTimedExpirer _unsafeCancelTimer]
118783 ms | -[ACRemoteAccountStoreSession remoteObjectProxyWithErrorHandler:0x16fd6
9b70]
118783 ms | | -[ACRemoteAccountStoreSession _connection]
118783 ms -[AMSAccountsChangedObservable _accountStoreDidChange:0x28169f1e0]
118783 ms | +[AMSLogConfig sharedAccountsConfig]
118783 ms | -[AMSLogConfig OSLogObject]
118783 ms | | -[AMSLogConfig propertyAccessQueue]
118783 ms | | -[AMSLogConfig backingOSLogObject]
/* TID 0xf107 */
118784 ms | -[ACAccountStore dmc_RemoteManagementAccounts]
118784 ms | | -[ACAccountStore dmc_RemoteManagementAccountType]
118784 ms | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x1e741
8c58]
118784 ms | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x
1e7418c58 error:0x0]
118784 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
118784 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x1701c64c
0]
118784 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0xc533 */
118785 ms -[AACloudServiceOwner accountForService:0x1ecb2df10]
118785 ms | +[AACloudServiceOwner _serviceTypeForPlatform]
/* TID 0xf107 */
118785 ms | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x1701c64a0]
118785 ms | | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xc533 */
118785 ms | -[ACAccountStore aa_primaryAppleAccount]
118785 ms | | -[ACAccountStore accountsWithAccountTypeIdentifiers:0x2810257f0 pr
eloadedProperties:0x0 error:0x0]
118785 ms | | | -[ACAccountStore remoteAccountStoreSession]
118785 ms | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e410]
118785 ms | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118785 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWit
hErrorHandler:0x16fe7e3f0]
118785 ms | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xf107 */
118785 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118785 ms | | | | | | -[ACAccountType description]
118785 ms | | | | | | | -[ACAccountType accountTypeDescription]
118785 ms | | | | | | | -[ACAccountType identifier]
118785 ms | | | | -[ACAccountStore accountsWithAccountType:0x283990fc0]
118785 ms | | | | | -[ACAccountType description]
118785 ms | | | | | | -[ACAccountType accountTypeDescription]
118785 ms | | | | | | | -[ACAccountType identifier]
118785 ms | | | | -[ACAccountStore remoteAccountStoreSession]
118785 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x1701c6470]
118785 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118785 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWit

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hErrorHandler:0x1701c6450]
118785 ms | | | | -[ACRemoteAccountStoreSession _connection]
118785 ms | | | -[ACAccountType encodeWithCoder:0x10227d000]
118785 ms | | | | -[ACAccountType identifier]
118785 ms | | | | -[ACAccountType accountTypeDescription]
118785 ms | | | | -[ACAccountType objectID]
118785 ms | | | | -[ACAccountType visibility]
118785 ms | | | | -[ACAccountType credentialProtectionPolicy]
118785 ms | | | | -[ACAccountType supportsAuthentication]
118785 ms | | | | -[ACAccountType supportsMultipleAccounts]
118785 ms | | | | -[ACAccountType owningBundleID]
118786 ms | | | | -[ACAccountType isObsolete]

/* TID 0xc533 */
118786 ms +[ACAccountStore ams_sharedAccountStoreForMediaType:0x1e77eaeb0]
118786 ms | +[AMSUnitTests isRunningUnitTests]
118786 ms | +[ACAccountStore defaultStore]
118786 ms -[ACAccountStore ams_activeiTunesAccount]
118786 ms | -[ACAccountStore ams_mediaType]
118786 ms | | +[AMSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
118786 ms | | | +[AMSAccountStoreCache cacheAccessQueue]
118786 ms | | | +[AMSAccountStoreCache cache]
118786 ms | | | | +[AMSAccountStoreCache cacheAccessQueue]
118786 ms | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
118786 ms | | | | +[AMSUnitTests isRunningUnitTests]
118786 ms | | | | +[AMSProcessInfo defaultMediaTypeAccessQueue]
118786 ms | -[ACAccountStore ams_iTunesAccounts]
118786 ms | | -[ACAccountStore ams_mediaType]
118786 ms | | | +[AMSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
118786 ms | | | | +[AMSAccountStoreCache cacheAccessQueue]
118786 ms | | | | +[AMSAccountStoreCache cache]
118786 ms | | | | | +[AMSAccountStoreCache cacheAccessQueue]
118787 ms | | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
118787 ms | | | | | +[AMSUnitTests isRunningUnitTests]
118787 ms | | | | | +[AMSProcessInfo defaultMediaTypeAccessQueue]
118787 ms | | | +[ACAccountStore ams_accountTypeIdentifierForMediaType:0x1e77eaeb0]
]

118787 ms | | -[ACAccountStore _ams_accountsWithAccountTypeIdentifier:0x1e741887
8 options:0x1 error:0x16fe7e5c8]
118787 ms | | | -[ACAccountStore _ams_accountTypeWithIdentifier:0x
1e7418878 error:0x16fe7e5c8]
118787 ms | | | | -[ACAccountStore accountTypeWithIdentifier:0x
1e7418878 error:0x16fe7e4e8]
118787 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
118787 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e28
0]
118787 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118787 ms | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x16fe7e260]
118787 ms | | | | | | | -[ACRemoteAccountStoreSession _connection]
118787 ms | | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118787 ms | | | | | | | -[ACAccountType description]
118787 ms | | | | | | | | -[ACAccountType accountTypeDescription]
118787 ms | | | | | | | | -[ACAccountType identifier]
118787 ms | | | | | -[ACAccountStore _ams_accountsWithAccountType:0x2839f5ab0 opt
ions:0x1 error:0x16fe7e5c8]
118787 ms | | | | | | -[ACAccountStore accountsWithAccountType:0x2839f5ab0 opt

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ions:0x1 error:0x16fe7e548]
118787 ms | | | | | -[ACAccountType description]
118787 ms | | | | | | -[ACAccountType accountTypeDescription]
118787 ms | | | | | | -[ACAccountType identifier]
118787 ms | | | | -[ACAccountStore remoteAccountStoreSession]
118787 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e21
0]
118787 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118787 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x16fe7e1f0]
118787 ms | | | | | -[ACRemoteAccountStoreSession _connection]
118787 ms | | | | | -[ACAccountType encodeWithCoder:0x101a8d400]
118787 ms | | | | | | -[ACAccountType identifier]
118787 ms | | | | | | -[ACAccountType accountTypeDescription]
118787 ms | | | | | | -[ACAccountType objectID]
118787 ms | | | | | | -[ACAccountType visibility]
118787 ms | | | | | | -[ACAccountType credentialProtectionPolicy]
118787 ms | | | | | | -[ACAccountType supportsAuthentication]
118787 ms | | | | | | -[ACAccountType supportsMultipleAccounts]
118787 ms | | | | | | -[ACAccountType owningBundleID]
118787 ms | | | | | | -[ACAccountType isObsolete]
118789 ms | | | | -[ACAccount _setAccountStore:0x283916df0]
118789 ms | | | | | -[ACAccountType setAccountStore:0x283916df0]
118789 ms | | | | -[ACAccount _setAccountStore:0x283916df0]
118789 ms | | | | | -[ACAccountType setAccountStore:0x283916df0]
118789 ms | | | | -[ACAccount _setAccountStore:0x283916df0]
118789 ms | | | | | -[ACAccountType setAccountStore:0x283916df0]
118789 ms | | | | -[ACAccount description]
118789 ms | | | | | -[ACAccount username]
118789 ms | | | | | | -[ACAccount _useParentForCredentials]
118789 ms | | | | | | | -[ACAccount authenticationType]
118789 ms | | | | | | -[ACAccount identifier]
118789 ms | | | | -[ACAccount description]
118789 ms | | | | | -[ACAccount username]
118789 ms | | | | | | -[ACAccount _useParentForCredentials]
118789 ms | | | | | | | -[ACAccount authenticationType]
118789 ms | | | | | | -[ACAccount identifier]
118789 ms | | | | -[ACAccount description]
118789 ms | | | | | -[ACAccount username]
118789 ms | | | | | | -[ACAccount _useParentForCredentials]
118789 ms | | | | | | | -[ACAccount authenticationType]
118789 ms | | | | | | -[ACAccount identifier]
118789 ms | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118789 ms | | | | | -[ACAccount isActive]
118789 ms | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118789 ms | | | | | -[ACAccount isActive]
118789 ms | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118789 ms | | | | | -[ACAccount isActive]
/* TID 0x103 */
118798 ms | | | -[ACNotificationRebroadcaster _accountStoreDidChange:0x281d0c4b0]
/* TID 0xc533 */
118798 ms | | -[ACAccountStore dmc_visibleRemoteManagementAccounts]
118798 ms | | | -[ACAccountStore dmc_RemoteManagementAccounts]
118798 ms | | | | -[ACAccountStore dmc_RemoteManagementAccountType]
118798 ms | | | | | -[ACAccountStore accountTypeWithAccountTypeID:0x1e741
8c58]

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118798 ms | | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x
1e7418c58 error:0x0]
118798 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
/* TID 0x103 */
118798 ms -[ACAccountStore visibleTopLevelAccountsWithAccountTypeIdentifiers:0x283c0ee
00 completion:0x16fd69d98]
/* TID 0xc533 */
118798 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e4c
0]
/* TID 0x103 */
118798 ms | -[ACAccountStore remoteAccountStoreSession]
118798 ms | | -[ACTimedExpirer scheduleExpiration:0x16fd69b90]
/* TID 0xc533 */
118798 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0x103 */
118798 ms | | | | -[ACTimedExpirer _unsafeCancelTimer]
118798 ms | -[ACRemoteAccountStoreSession remoteObjectProxyWithErrorHandler:0x16fd6
9b70]
118798 ms | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xc533 */
118798 ms | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x16fe7e4a0]
118799 ms | | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0x103 */
118799 ms -[AMSAccountsChangedObservable _accountStoreDidChange:0x281697600]
118799 ms | +[AMSLogConfig sharedAccountsConfig]
118799 ms | -[AMSLogConfig OSLogObject]
118799 ms | | -[AMSLogConfig propertyAccessQueue]
118799 ms | | -[AMSLogConfig backingOSLogObject]
/* TID 0x1251f */
118799 ms -[AACloudServiceOwner accountForService:0x1ecb2df10]
118799 ms | +[AACloudServiceOwner _serviceTypeForPlatform]
118799 ms | -[ACAccountStore aa_primaryAppleAccount]
118799 ms | | -[ACAccountStore accountsWithAccountTypeIdentifiers:0x281038a30 pr
eloadedProperties:0x0 error:0x0]
/* TID 0xc533 */
118799 ms | | | | | -[ACAccountType setAccountStore:0x283916df0]
118799 ms | | | | | -[ACAccountType description]
118799 ms | | | | | | -[ACAccountType accountTypeDescription]
118799 ms | | | | | | -[ACAccountType identifier]
/* TID 0x1251f */
118799 ms | | | | -[ACAccountStore remoteAccountStoreSession]
118799 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x170482410]
118799 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0xc533 */
118799 ms | | | | -[ACAccountStore accountsWithAccountType:0x2839f4e00]
118799 ms | | | | | -[ACAccountType description]
118799 ms | | | | | | -[ACAccountType accountTypeDescription]
118799 ms | | | | | | -[ACAccountType identifier]
/* TID 0x1251f */
118799 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWit
hErrorHandler:0x1704823f0]
118799 ms | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xc533 */
118799 ms | | | | -[ACAccountStore remoteAccountStoreSession]
118799 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x16fe7e470]

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118799 ms | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118799 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x16fe7e450]
118799 ms | | | | | -[ACRemoteAccountStoreSession _connection]
118799 ms | | | | | -[ACAccountType encodeWithCoder:0x101a84800]
118799 ms | | | | | | -[ACAccountType identifier]
118799 ms | | | | | | -[ACAccountType accountTypeDescription]
118799 ms | | | | | | -[ACAccountType objectID]
118799 ms | | | | | | -[ACAccountType visibility]
118799 ms | | | | | | -[ACAccountType credentialProtectionPolicy]
118799 ms | | | | | | -[ACAccountType supportsAuthentication]
118799 ms | | | | | | -[ACAccountType supportsMultipleAccounts]
118799 ms | | | | | | -[ACAccountType owningBundleID]
118799 ms | | | | | | -[ACAccountType isObsolete]

/* TID 0x1251f */
118800 ms +[ACAccountStore ams_sharedAccountStoreForMediaType:0x1e77eaeb0]
118800 ms | +[AMSUnitTests isRunningUnitTests]
118800 ms | +[ACAccountStore defaultStore]
118800 ms -[ACAccountStore ams_activeiTunesAccount]
118800 ms | -[ACAccountStore ams_mediaType]
118800 ms | | +[AMSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
118800 ms | | | +[AMSAccountStoreCache cacheAccessQueue]
118800 ms | | | +[AMSAccountStoreCache cache]
118800 ms | | | | +[AMSAccountStoreCache cacheAccessQueue]
118800 ms | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
118800 ms | | | | +[AMSUnitTests isRunningUnitTests]
118800 ms | | | | +[AMSProcessInfo defaultMediaTypeAccessQueue]
118800 ms | -[ACAccountStore ams_iTunesAccounts]
118800 ms | | -[ACAccountStore ams_mediaType]
118800 ms | | | +[AMSAccountStoreCache mediaTypeForAccountStore:0x283916df0]
118800 ms | | | | +[AMSAccountStoreCache cacheAccessQueue]
118800 ms | | | | +[AMSAccountStoreCache cache]
118800 ms | | | | | +[AMSAccountStoreCache cacheAccessQueue]
118800 ms | | | | +[AMSProcessInfo defaultMediaTypeForCurrentProcess]
118800 ms | | | | | +[AMSUnitTests isRunningUnitTests]
118800 ms | | | | | +[AMSProcessInfo defaultMediaTypeAccessQueue]
118800 ms | | +[ACAccountStore ams_accountTypeIdentifierForMediaType:0x1e77eaeb0]
]

118800 ms | | | -[ACAccountStore _ams_accountsWithAccountTypeIdentifier:0x1e7418878 options:0x1 error:0x1704825c8]
118800 ms | | | | -[ACAccountStore _ams_accountTypeWithAccountTypeIdentifier:0x1e7418878 error:0x1704825c8]
118800 ms | | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x1e7418878 error:0x1704824e8]
118800 ms | | | | | | -[ACAccountStore remoteAccountStoreSession]
118800 ms | | | | | | | -[ACTimedExpirer scheduleExpiration:0x170482280]
118800 ms | | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118800 ms | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x170482260]
118800 ms | | | | | | | -[ACRemoteAccountStoreSession _connection]
118801 ms | | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118801 ms | | | | | | | -[ACAccountType description]
118801 ms | | | | | | | | -[ACAccountType accountTypeDescription]
118801 ms | | | | | | | | -[ACAccountType identifier]
118801 ms | | | | -[ACAccountStore _ams_accountsWithAccountType:0x2839f4e00 opt

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ions:0x1 error:0x1704825c8]
118801 ms | | | | | -[ACAccountStore accountsWithAccountType:0x2839f4e00 options:0x1 error:0x170482548]
118801 ms | | | | | | -[ACAccountType description]
118801 ms | | | | | | | -[ACAccountType accountTypeDescription]
118801 ms | | | | | | | -[ACAccountType identifier]
118801 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
118801 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x170482210]
118801 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118801 ms | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x1704821f0]
118801 ms | | | | | | -[ACRemoteAccountStoreSession _connection]
118801 ms | | | | | | | -[ACAccountType encodeWithCoder:0x10227d000]
118801 ms | | | | | | | -[ACAccountType identifier]
118801 ms | | | | | | | -[ACAccountType accountTypeDescription]
118801 ms | | | | | | | -[ACAccountType objectID]
118801 ms | | | | | | | -[ACAccountType visibility]
118801 ms | | | | | | | -[ACAccountType credentialProtectionPolicy]
118801 ms | | | | | | | -[ACAccountType supportsAuthentication]
118801 ms | | | | | | | -[ACAccountType supportsMultipleAccounts]
118801 ms | | | | | | | -[ACAccountType owningBundleID]
118801 ms | | | | | | | -[ACAccountType isObsolete]
118803 ms | | | | | -[ACAccount _setAccountStore:0x283916df0]
118803 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118803 ms | | | | | -[ACAccount _setAccountStore:0x283916df0]
118803 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118803 ms | | | | | -[ACAccount _setAccountStore:0x283916df0]
118803 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118803 ms | | | | | -[ACAccount description]
118803 ms | | | | | | -[ACAccount username]
118803 ms | | | | | | | -[ACAccount _useParentForCredentials]
118803 ms | | | | | | | | -[ACAccount authenticationType]
118803 ms | | | | | | | -[ACAccount identifier]
118803 ms | | | | | -[ACAccount description]
118803 ms | | | | | | -[ACAccount username]
118803 ms | | | | | | | -[ACAccount _useParentForCredentials]
118803 ms | | | | | | | | -[ACAccount authenticationType]
118803 ms | | | | | | | -[ACAccount identifier]
118803 ms | | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118803 ms | | | | | | -[ACAccount isActive]
118803 ms | | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118803 ms | | | | | | -[ACAccount isActive]
118803 ms | | | | | -[ACAccount ams_isActiveForMediaType:0x1e77eaeb0]
118803 ms | | | | | | -[ACAccount isActive]
/* TID 0xf107 */
118835 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWithIdentifier:0x2807dac40]
/* TID 0x103 */
118835 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169dc40]
118835 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dac40]

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118835 ms -[ACAccount credentialsChanged:0x28169dc40]
118835 ms | -[ACAccount identifier]
118835 ms | -[ACAccount isPropertyDirty:0x1e7417d98]
/* TID 0xf107 */
118843 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807c0b00]
/* TID 0x103 */
118843 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x28169dc40]
118843 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807c0b00]
118843 ms -[ACAccount credentialsChanged:0x28169dc40]
118843 ms | -[ACAccount identifier]
118843 ms | -[ACAccount isPropertyDirty:0x1e7417d98]
118856 ms -[ACNotificationRebroadcaster _accountStoreDidChange:0x281d0a460]
118856 ms -[ACAccountStore visibleTopLevelAccountsWithAccountTypeIdentifiers:0x283cfb0
80 completion:0x16fd69d98]
118856 ms | -[ACAccountStore remoteAccountStoreSession]
118856 ms | | -[ACTimedExpirer scheduleExpiration:0x16fd69b90]
118856 ms | | | -[ACTimedExpirer _unsafeCancelTimer]
118856 ms | -[ACRemoteAccountStoreSession remoteObjectProxyWithErrorHandler:0x16fd6
9b70]
118856 ms | | -[ACRemoteAccountStoreSession _connection]
118857 ms -[AMSAccountsChangedObservable _accountStoreDidChange:0x28169e520]
118857 ms | +[AMSLogConfig sharedAccountsConfig]
118857 ms | -[AMSLogConfig OSLogObject]
118857 ms | | -[AMSLogConfig propertyAccessQueue]
118857 ms | | | -[AMSLogConfig backingOSLogObject]
/* TID 0xf107 */
118858 ms -[ACAccountStore dmc_visibleRemoteManagementAccounts]
118858 ms | -[ACAccountStore dmc_RemoteManagementAccounts]
118858 ms | | -[ACAccountStore dmc_RemoteManagementAccountType]
118858 ms | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x1e741
8c58]
118858 ms | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x
1e7418c58 error:0x0]
118858 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
118858 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x1701c64c
0]
118858 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0xf427 */
118858 ms -[AACloudServiceOwner accountForService:0x1ecb2df10]
/* TID 0xf107 */
118858 ms | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x1701c64a0]
118858 ms | | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xf427 */
118858 ms | +[AACloudServiceOwner _serviceTypeForPlatform]
118858 ms | -[ACAccountStore aa_primaryAppleAccount]
118858 ms | | -[ACAccountStore accountsWithAccountTypeIdentifiers:0x281020b20 pr
eloadedProperties:0x0 error:0x0]
118858 ms | | | -[ACAccountStore remoteAccountStoreSession]
118858 ms | | | | -[ACTimedExpirer scheduleExpiration:0x170626410]
118858 ms | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0xf107 */
118858 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118858 ms | | | | | | -[ACAccountType description]
118858 ms | | | | | | | -[ACAccountType accountTypeDescription]

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118858 ms | | | | | | | -[ACAccountType identifier]
/* TID 0xf427 */
118859 ms | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x1706263f0]
/* TID 0xf107 */
118859 ms | | | -[ACAccountStore accountsWithAccountType:0x2839f4e00]
118859 ms | | | | -[ACAccountType description]
118859 ms | | | | | -[ACAccountType accountTypeDescription]
118859 ms | | | | | -[ACAccountType identifier]
118859 ms | | | | -[ACAccountStore remoteAccountStoreSession]
118859 ms | | | | | -[ACTimedExpirer scheduleExpiration:0x1701c6470]
118859 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
/* TID 0xf427 */
118859 ms | | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0xf107 */
118859 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x1701c6450]
118859 ms | | | | | -[ACRemoteAccountStoreSession _connection]
118859 ms | | | | | -[ACAccountType encodeWithCoder:0x101a84800]
118859 ms | | | | | | -[ACAccountType identifier]
118859 ms | | | | | | -[ACAccountType accountTypeDescription]
118859 ms | | | | | | -[ACAccountType objectID]
118859 ms | | | | | | -[ACAccountType visibility]
118859 ms | | | | | | -[ACAccountType credentialProtectionPolicy]
118859 ms | | | | | | -[ACAccountType supportsAuthentication]
118859 ms | | | | | | -[ACAccountType supportsMultipleAccounts]
118859 ms | | | | | | -[ACAccountType owningBundleID]
118859 ms | | | | | | -[ACAccountType isObsolete]
/* TID 0xf427 */
118861 ms | | | | | -[ACAccount _setAccountStore:0x283916df0]
118861 ms | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118861 ms | | | | | -[ACAccount description]
118861 ms | | | | | | -[ACAccount username]
118861 ms | | | | | | | -[ACAccount _useParentForCredentials]
118861 ms | | | | | | | | -[ACAccount authenticationType]
118861 ms | | | | | | -[ACAccount identifier]
/* TID 0x1251f */
118861 ms +[ACAccount supportsSecureCoding]
/* TID 0xf427 */
118861 ms | | -[ACAccount aa_isAccountClass:0x1e8b42a50]
118861 ms | | | -[ACAccount aa_accountClass]
118861 ms | | | | -[ACAccount objectForKeyedSubscript:0x1e8b42c10]
118861 ms | | | | | -[ACAccount accountPropertyForKey:0x1e8b42c10]
/* TID 0x1251f */
118861 ms +[ACAccountType supportsSecureCoding]
/* TID 0xf427 */
118861 ms -[ACAccount userFullName]
118861 ms | -[ACAccount objectForKeyedSubscript:0x1e7417798]
118861 ms | | -[ACAccount accountPropertyForKey:0x1e7417798]
118861 ms | -[ACAccount objectForKeyedSubscript:0x1e74177d8]
118861 ms | | -[ACAccount accountPropertyForKey:0x1e74177d8]
118862 ms | -[ACAccount objectForKeyedSubscript:0x1e7417798]
118862 ms | | -[ACAccount accountPropertyForKey:0x1e7417798]
118862 ms | -[ACAccount objectForKeyedSubscript:0x1e74177b8]
118862 ms | | -[ACAccount accountPropertyForKey:0x1e74177b8]
118862 ms | -[ACAccount objectForKeyedSubscript:0x1e74177d8]

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118862 ms      |      | -[ACAccount accountPropertyForKey:0x1e74177d8]
118862 ms      |      /* TID 0x1251f */
118862 ms      | -[ACAccount _setAccountStore:0x283911b90]
118862 ms      |      | -[ACAccountType setAccountStore:0x283911b90]
118862 ms      |      /* TID 0xf427 */
118863 ms      | -[ACAccount isSubscriber]
118863 ms      |      | -[ACAccount accountPropertyForKey:0x1ed6c7680]
118863 ms      |      /* TID 0x1251f */
118867 ms      | -[ACAccountStore dmc_visibleRemoteManagementAccounts]
118867 ms      |      /* TID 0x103 */
118867 ms      | -[ACNotificationRebroadcaster _accountStoreDidChange:0x281d0d080]
118867 ms      | -[ACAccountStore visibleTopLevelAccountsWithAccountTypeIdentifiers:0x283cf33
80 completion:0x16fd69d98]
118867 ms      |      | -[ACAccountStore remoteAccountStoreSession]
118867 ms      |      |      | -[ACTimedExpirer scheduleExpiration:0x16fd69b90]
118867 ms      |      |      |      | -[ACTimedExpirer _unsafeCancelTimer]
118867 ms      |      | -[ACRemoteAccountStoreSession remoteObjectProxyWithErrorHandler:0x16fd6
9b70]
118867 ms      |      |      | -[ACRemoteAccountStoreSession _connection]
118867 ms      | -[AMSAccountsChangedObservable _accountStoreDidChange:0x281697e00]
118867 ms      |      | +[AMSLogConfig sharedAccountsConfig]
118867 ms      |      | -[AMSLogConfig OSLogObject]
118867 ms      |      |      | -[AMSLogConfig propertyAccessQueue]
118867 ms      |      |      | -[AMSLogConfig backingOSLogObject]
118867 ms      |      /* TID 0x1251f */
118869 ms      | -[ACAccountStore dmc_RemoteManagementAccounts]
118869 ms      |      | -[ACAccountStore dmc_RemoteManagementAccountType]
118869 ms      |      |      | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x1e741
8c58]
118869 ms      |      |      |      | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x
1e7418c58 error:0x0]
118869 ms      |      |      |      | -[ACAccountStore remoteAccountStoreSession]
118869 ms      |      |      |      |      | -[ACTimedExpirer scheduleExpiration:0x1704824c
0]
118869 ms      |      |      |      |      |      | -[ACTimedExpirer _unsafeCancelTimer]
118869 ms      |      |      |      |      | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x1704824a0]
118869 ms      |      |      |      |      |      | -[ACRemoteAccountStoreSession _connection]
118870 ms      |      |      |      |      | -[ACAccountType setAccountStore:0x283916df0]
118870 ms      |      |      |      |      | -[ACAccountType description]
118870 ms      |      |      |      |      |      | -[ACAccountType accountTypeDescription]
118870 ms      |      |      |      |      |      | -[ACAccountType identifier]
118870 ms      |      |      |      | -[ACAccountStore accountsWithAccountType:0x2839934f0]
118870 ms      |      |      |      | -[ACAccountType description]
118870 ms      |      |      |      |      | -[ACAccountType accountTypeDescription]
118870 ms      |      |      |      |      | -[ACAccountType identifier]
118870 ms      |      |      | -[ACAccountStore remoteAccountStoreSession]
118870 ms      |      |      |      | -[ACTimedExpirer scheduleExpiration:0x170482470]
118870 ms      |      |      |      |      | -[ACTimedExpirer _unsafeCancelTimer]
118870 ms      |      |      |      | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWit
hErrorHandler:0x170482450]
118870 ms      |      |      |      |      | -[ACRemoteAccountStoreSession _connection]
118870 ms      |      |      | -[ACAccountType encodeWithCoder:0x10227d000]
118870 ms      |      |      |      | -[ACAccountType identifier]
118870 ms      |      |      |      | -[ACAccountType accountTypeDescription]
118870 ms      |      |      |      | -[ACAccountType objectID]

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118870 ms | | | | | -[ACAccountType visibility]
118870 ms | | | | | -[ACAccountType credentialProtectionPolicy]
118870 ms | | | | | -[ACAccountType supportsAuthentication]
118870 ms | | | | | -[ACAccountType supportsMultipleAccounts]
118870 ms | | | | | -[ACAccountType owningBundleID]
118870 ms | | | | | -[ACAccountType isObsolete]

/* TID 0xf427 */
118871 ms -[ACAccountStore aa_primaryAppleAccount]
118871 ms | -[ACAccountStore accountsWithAccountTypeIdentifiers:0x28100c120 preload
edProperties:0x0 error:0x0]
118871 ms | | -[ACAccountStore remoteAccountStoreSession]
118871 ms | | | -[ACTimedExpirer scheduleExpiration:0x170626450]
118871 ms | | | | -[ACTimedExpirer _unsafeCancelTimer]
118871 ms | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErro
rHandler:0x170626430]
118871 ms | | | | -[ACRemoteAccountStoreSession _connection]
/* TID 0x1251f */
118875 ms -[ACAccount _setAccountStore:0x283911b90]
118875 ms | -[ACAccountType setAccountStore:0x283911b90]
/* TID 0xf427 */
118876 ms | | -[ACAccount _setAccountStore:0x283916df0]
118876 ms | | | -[ACAccountType setAccountStore:0x283916df0]
118876 ms | | -[ACAccount description]
118876 ms | | | -[ACAccount username]
118876 ms | | | | -[ACAccount _useParentForCredentials]
118876 ms | | | | | -[ACAccount authenticationType]
118876 ms | | | | -[ACAccount identifier]
118876 ms | -[ACAccount aa_isAccountClass:0x1e8b42a50]
118876 ms | | -[ACAccount aa_accountClass]
118876 ms | | | -[ACAccount objectForKeyedSubscript:0x1e8b42c10]
118876 ms | | | | -[ACAccount accountPropertyForKey:0x1e8b42c10]
118877 ms -[AAUIProfilePictureStore initWithAppleAccount:0x282b40ee0 store:0x283916df0
]
118877 ms | -[ACAccountStore aa_grandSlamAccountFor iCloudAccount:0x282b40ee0]
118877 ms | | -[ACAccountStore aida_accountFor iCloudAccount:0x282b40ee0]
118877 ms | | | -[ACAccount aida_alternateDSID]
118877 ms | | | | -[ACAccount accountPropertyForKey:0x1ecb2ded0]
118877 ms | | | -[ACAccountStore aida_AppleIDAuthenticationAccounts]
118877 ms | | | | -[ACAccountStore aida_AppleIDAuthenticationAccountType]
118877 ms | | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifi
er:0x1e7418a38]
118877 ms | | | | | | -[ACAccountStore accountTypeWithAccountTypeIdentifier:0x1e7418a38 error:0x0]
118877 ms | | | | | | | -[ACAccountStore remoteAccountStoreSession]
118877 ms | | | | | | | | -[ACTimedExpirer scheduleExpiration:
0x1706263a0]
118877 ms | | | | | | | | | -[ACTimedExpirer _unsafeCancelT
imer]
118877 ms | | | | | | | | | -[ACRemoteAccountStoreSession synchronous
RemoteObjectProxyWithErrorHandler:0x170626380]
118877 ms | | | | | | | | | -[ACRemoteAccountStoreSession _conne
ction]
118878 ms | | | | | | | | | -[ACAccountType setAccountStore:0x283916d
f0]
118878 ms | | | | | | | | | -[ACAccountType description]

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118878 ms | | | | | | | | -[ACAccountType accountTypeDescripti
on]
118878 ms | | | | | | | | -[ACAccountType identifier]
118878 ms | | | | -[ACAccountStore accountsWithAccountType:0x2839938e0]
118878 ms | | | | -[ACAccountType description]
118878 ms | | | | -[ACAccountType accountTypeDescription]
118878 ms | | | | -[ACAccountType identifier]
118878 ms | | | | -[ACAccountStore remoteAccountStoreSession]
118878 ms | | | | -[ACTimedExpirer scheduleExpiration:0x17062635
0]
118878 ms | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118878 ms | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x170626330]
118878 ms | | | | | | | | -[ACRemoteAccountStoreSession _connection]
118878 ms | | | | | | | | -[ACAccountType encodeWithCoder:0x10227fa00]
118878 ms | | | | | | | | -[ACAccountType identifier]
118878 ms | | | | | | | | -[ACAccountType accountTypeDescription]
118878 ms | | | | | | | | -[ACAccountType objectID]
118878 ms | | | | | | | | -[ACAccountType visibility]
118878 ms | | | | | | | | -[ACAccountType credentialProtectionPolicy]
118878 ms | | | | | | | | -[ACAccountType supportsAuthentication]
118878 ms | | | | | | | | -[ACAccountType supportsMultipleAccounts]
118878 ms | | | | | | | | -[ACAccountType owningBundleID]
118878 ms | | | | | | | | -[ACAccountType isObsolete]
118880 ms | | | | | | | | -[ACAccount _setAccountStore:0x283916df0]
118880 ms | | | | | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118880 ms | | | | | | | | -[ACAccount _setAccountStore:0x283916df0]
118880 ms | | | | | | | | | | -[ACAccountType setAccountStore:0x283916df0]
118880 ms | | | | | | | | -[ACAccount description]
118880 ms | | | | | | | | | | -[ACAccount username]
118880 ms | | | | | | | | | | | | -[ACAccount _useParentForCredentials]
118880 ms | | | | | | | | | | | | | -[ACAccount authenticationType]
118880 ms | | | | | | | | | | -[ACAccount identifier]
118880 ms | | | | | | | | | | -[ACAccount description]
118880 ms | | | | | | | | | | -[ACAccount username]
118880 ms | | | | | | | | | | | | -[ACAccount _useParentForCredentials]
118880 ms | | | | | | | | | | | | | -[ACAccount authenticationType]
118880 ms | | | | | | | | | | -[ACAccount identifier]
118880 ms | | | | | | | | | | -[ACAccount aida_alternateDSID]
118880 ms | | | | | | | | | | | | -[ACAccount accountPropertyForKey:0x1ecb2ded0]
118880 ms | | | | | | | | | | -[ACAccount accountPropertyForKey:0x1ecb2e030]
118880 ms | | | | | | | | | | -[ACAccount username]
118880 ms | | | | | | | | | | | | -[ACAccount _useParentForCredentials]
118880 ms | | | | | | | | | | | | | -[ACAccount authenticationType]
118880 ms | | | | | | | | | | -[ACAccount username]
118880 ms | | | | | | | | | | | | -[ACAccount _useParentForCredentials]
118880 ms | | | | | | | | | | | | | -[ACAccount authenticationType]
118880 ms | | | | | | | | | | -[ACAccount aida_alternateDSID]
118880 ms | | | | | | | | | | | | -[ACAccount accountPropertyForKey:0x1ecb2ded0]
118880 ms | | | | | | | | | | -[AAUIProfilePictureStore initWithAppleAccount:0x282b40ee0 grandSlamAcc
ount:0x282b441c0 accountStore:0x283916df0]
118880 ms | | | | | | | | | | | | -[ACAccount accountType]
118880 ms | | | | | | | | | | -[ACAccountType identifier]
118880 ms | | | | | | | | | | -[AAGrandSlamSigner initWithAccountStore:0x283916df0 grandSlamAcco
unt:0x282b441c0 appTokenID:0x1e8b3e6d0]
118880 ms | | | | | | | | | | -[AAUIProfilePictureStore initWithAppleAccount:0x282b40ee0 grandSl

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amSigner:0x281d0c6c0]
118881 ms | | | -[AAGrandSlamSigner accountStore]
118897 ms | | | -[ACAccountStore init]
118897 ms | | | | -[ACAccountStore initWithRemoteEndpoint:0x0 effectiveBun
dleID:0x0]
118897 ms | | | | +[ACTimedExpirer expirerWithTimeout:0x1e]
118897 ms | | | | | -[ACTimedExpirer init]
118897 ms | | | | +[ACTimedExpirer expirerWithTimeout:0x1e]
118897 ms | | | | | -[ACTimedExpirer init]
118897 ms | | | | +[ACNotificationRebroadcaster sharedRebroadcaster]
118897 ms | | | | -[AAUIProfilePictureStore _beginObservingContactStoreDidChang
eNotifications]
118897 ms -[AAUIProfilePictureStore profilePictureForAccountOwnerWithoutMonogramFallba
ck]
118897 ms | -[ACAccount isEnabledForDataclass:0x1e74165f8]
118897 ms | | -[ACAccount enabledDataclasses]
118897 ms | | | -[ACAccount parentAccount]
118897 ms | | | -[ACAccount accountStore]
118897 ms | | | | -[ACAccountStore enabledDataclassesForAccount:0x282b40ee0 err
or:0x170626738]
118897 ms | | | | -[ACAccount description]
118897 ms | | | | | -[ACAccount username]
118897 ms | | | | | | -[ACAccount _useParentForCredentials]
118897 ms | | | | | | | -[ACAccount authenticationType]
118897 ms | | | | | | -[ACAccount identifier]
118897 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
118897 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x1706264d0]
118897 ms | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118897 ms | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectPro
xyWithErrorHandler:0x1706264b0]
118897 ms | | | | | | | -[ACRemoteAccountStoreSession _connection]
118897 ms | | | | | | -[ACAccount identifier]
118899 ms | | | | -[ACTrackedSet initWithSet:0x28169e720]
118899 ms | | | | | -[ACTrackedSet _initWithEnumerable:0x28169e720 count:0x3
]
118899 ms | | | | | -[ACTrackedSet initWithObjects:0x28169f900 count:0x
3]
118899 ms | | | | -[ACAccount aa_personID]
118899 ms | | | | | -[ACAccount accountPropertyForKey:0x1e8b42670]
118899 ms | | | +[AAUIServerSuppliedProfilePictureCache sharedCache]
118899 ms | | | | -[AAUIServerSuppliedProfilePictureCache init]
118899 ms | | | | -[AAUIServerSuppliedProfilePictureCache profilePictureForPersonID:0x281
64eb60 diameter:0x1706267b0 serverFetchBlock:0x70377d30]
118899 ms | | | | | -[AAUIServerSuppliedProfilePictureCache _ensureMinimumPictureDiameter_
mustBeSynchronized:0xf427]
118899 ms | | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry description]
118899 ms | | | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry description]
118899 ms | | | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry picture]
118899 ms | | | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry updating]
118899 ms | | | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry expired]
118899 ms | | | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry setUpdating:0x1]
118899 ms | | | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry serverCacheTag]
118899 ms | | | | | | | -[AAUIProfilePictureStore _fetchProfilePictureForAccountOwnerFromS
erver:0x28164eb60 serverCacheTag:0x0 completion:0x0]
118899 ms | | | | | | | -[AAMyPhotoRequest initWithAccount:0x282b40ee0]
118899 ms | | | | | | | -[AAMyPhotoRequest setServerCacheTag:0x0]

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118899 ms | | | | -[AAUIProfilePictureStore _fetchProfilePictureWithRequest:0x2
836f6340 personID:0x28164eb60 completion:0x0]
118899 ms | | | | -[AAUIProfilePictureStore _fetchProfilePictureSupersetWi
thRequest:0x2836f6340 personID:0x28164eb60 completion:0x170626658]
118899 ms | | | | | -[AARequest performRequestWithHandler:0x1706265e8]
118899 ms | | | | | +[AAURLSession sharedSession]
118899 ms | | | | | -[AARequest performRequestWithSession:0x281c39
5c0 withHandler:0x1706265e8]
118899 ms -[AAUIProfilePictureStore profilePictureForAccountOwner]
118899 ms | -[AAUIProfilePictureStore profilePictureForAccountOwnerWithoutMonogramF
allback]
118899 ms | | -[ACAccount isEnabledForDataclass:0x1e74165f8]
118899 ms | | | -[ACAccount enabledDataclasses]
118899 ms | | | | -[ACAccount parentAccount]
118899 ms | | | -[ACAccount aa_personID]
118899 ms | | | | -[ACAccount accountPropertyForKey:0x1e8b42670]
118899 ms | | | +[AAUIServerSuppliedProfilePictureCache sharedCache]
118899 ms | | | -[AAUIServerSuppliedProfilePictureCache profilePictureForPersonID:
0x28164eb60 diameter:0x170626760 serverFetchBlock:0x8]
118899 ms | | | | -[AAUIServerSuppliedProfilePictureCache _ensureMinimumPicture
Diameter_mustBeSynchronized:0xf427]
118899 ms | | | | -[AAUIServerSuppliedProfilePictureCacheEntry description]
118899 ms | | | | -[AAUIServerSuppliedProfilePictureCacheEntry picture]
118899 ms | | | | -[AAUIServerSuppliedProfilePictureCacheEntry updating]
118899 ms | | | -[ACAccount aa(firstName]
118899 ms | | | | -[ACAccount accountPropertyForKey:0x1e8b3c550]
118899 ms | | | -[ACAccount aa(lastName]
118899 ms | | | | -[ACAccount accountPropertyForKey:0x1e8b3c570]
118899 ms | | | -[AAUIProfilePictureStore _fallbackProfilePictureForPersonWithFirstName
:0x28164d340 lastName:0x28164f8a0]
118899 ms | | | | -[AAUIProfilePictureStore _monogrammer]
/* TID 0xf107 */
118899 ms -[AAMyPhotoRequest urlString]
118899 ms | +[AAURLConfiguration urlConfiguration]
118899 ms | | +[AAURLConfiguration _urlConfigurationWithError:0x0]
118899 ms | | | +[AAURLConfiguration remoteServer]
118899 ms | | | | -[AARemoteServer configurationWithCompletion:0x1701c6d48]
118899 ms | | | | | -[AARemoteServer _configurationAndResponseWithCompletion
:0x1701c6ce8]
118899 ms | | | | | -[AARemoteServer _configurationCacheInvalidateingIfN
ecessary]
118899 ms | | | | | | -[AARemoteServer _configurationLock_configuration
CacheInvalidateingIfNecessary]
118899 ms | | | | | | | -[AARemoteServerConfigurationCache creati
onDate]
118899 ms | | | | | | | -[AARemoteServerConfigurationCache configuration]
118900 ms | | | | | | | -[AARemoteServerConfigurationCache response]
118900 ms | | | | -[AAURLConfiguration getMyPhotoURL]
118900 ms | | | | | -[AAURLConfiguration urlStringForKey:0x1e8b3ee90]
118900 ms -[AAMyPhotoRequest urlRequest]
118900 ms | -[AARequest urlRequest]
118900 ms | | -[AAMyPhotoRequest urlString]
118900 ms | | | +[AAURLConfiguration urlConfiguration]
118900 ms | | | | +[AAURLConfiguration _urlConfigurationWithError:0x0]
118900 ms | | | | | +[AAURLConfiguration remoteServer]
118900 ms | | | | | -[AARemoteServer configurationWithCompletion:0x1701

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c6b78]
118900 ms | | | | | | | -[AARemoteServer _configurationAndResponseWith
Completion:0x1701c6b18]
118900 ms | | | | | | | -[AARemoteServer _configurationCacheInval
idatingIfNecessary]
118900 ms | | | | | | | | -[AARemoteServer _configurationLock_
configurationCacheInvalidatingIfNecessary]
118900 ms | | | | | | | | | -[AARemoteServerConfigurationCa
che creationDate]
118900 ms | | | | | | | | -[AARemoteServerConfigurationCache config
uration]
118900 ms | | | | | | | | -[AARemoteServerConfigurationCache respon
se]
118900 ms | | | | -[AAURLConfiguration getMyPhotoURL]
118900 ms | | | | | -[AAURLConfiguration _urlStringForKey:0x1e8b3ee90]
118900 ms | | | -[AARequest flushCache]
118901 ms | | | +[AADeviceInfo clientInfoHeader]
118901 ms | | | | +[AADeviceInfo clientInfoHeader]
118901 ms | | | | | -[AADeviceInfo productType]
118901 ms | | | | | -[AADeviceInfo osName]
118901 ms | | | | | +[AADeviceInfo osVersion]
118901 ms | | | | | -[AADeviceInfo buildVersion]
118902 ms | | | | +[AAPreferences isExperimentalModeEnabled]
118902 ms | | | | | +[AADeviceInfo isInternalBuild]
118902 ms | | | -[ACAccount description]
118902 ms | | | | -[ACAccount username]
118902 ms | | | | | -[ACAccount _useParentForCredentials]
118902 ms | | | | | | -[ACAccount authenticationType]
118902 ms | | | | -[ACAccount identifier]
118902 ms | | | -[ACAccount aa_personID]
118902 ms | | | | -[ACAccount accountPropertyForKey:0x1e8b42670]
118902 ms | | | -[ACAccount aa_authToken]
118902 ms | | | | -[ACAccount credential]
118902 ms | | | | | -[ACAccount credentialWithError:0x0]
118902 ms | | | | | | -[ACAccount _useParentForCredentials]
118902 ms | | | | | | | -[ACAccount authenticationType]
118902 ms | | | | -[ACAccount accountStore]
118902 ms | | | | | -[ACAccountStore credentialForAccount:0x282b40eee0 error:
0x0]
118902 ms | | | | | | -[ACAccount description]
118902 ms | | | | | | | -[ACAccount username]
118902 ms | | | | | | | | -[ACAccount _useParentForCredentials]
118902 ms | | | | | | | | | -[ACAccount authenticationType]
118902 ms | | | | | | | | -[ACAccount identifier]
118902 ms | | | | | | -[ACAccountStore remoteAccountStoreSession]
118902 ms | | | | | | | -[ACTimedExpirer scheduleExpiration:0x1701c69d
0]
118902 ms | | | | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118902 ms | | | | | | -[ACRemoteAccountStoreSession synchronousRemoteObje
ctProxyWithErrorHandler:0x1701c69b0]
118902 ms | | | | | | | -[ACRemoteAccountStoreSession _connection]
118903 ms | | | | | | | -[ACAccount identifier]
118907 ms | | | | | | | +[ACAccountCredential supportsSecureCoding]
118907 ms | | | | | | | +[ACZeroingString supportsSecureCoding]
118907 ms | | | | | | | -[ACAccountCredential _setOwningAccount:0x282b40eee0
]
```

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118907 ms | | | | | -[ACAccountCredential description]
118907 ms | | | | | -[ACAccount _installCredentialsChangedObserver]
118908 ms | | | -[ACAccountCredential token]
118908 ms | | | | -[ACAccountCredential credentialItemForKey:0x1e74190b8]
118908 ms | | | | | -[ACZeroingString length]
118908 ms | | | | | -[ACZeroingString getCharacters:0x1203769e0 range:0x0]
118908 ms | | | -[ACAccount aa_personID]
118908 ms | | | | -[ACAccount accountPropertyForKey:0x1e8b42670]
118908 ms | | | -[ACAccount aa_authToken]
118908 ms | | | | -[ACAccount credential]
118908 ms | | | | | -[ACAccount credentialWithError:0x0]
118908 ms | | | | | | -[ACAccount _useParentForCredentials]
118908 ms | | | | | | | -[ACAccount authenticationType]
118908 ms | | | | -[ACAccountCredential token]
118908 ms | | | | | -[ACAccountCredential credentialItemForKey:0x1e74190b8]
118908 ms | | | | | | -[ACZeroingString length]
118908 ms | | | | | | -[ACZeroingString getCharacters:0x120373360 range:0x0]
118908 ms | | | | -[ACAccount aa_altdSID]
118908 ms | | | | | -[ACAccount accountPropertyForKey:0x1e8b3c830]
118908 ms | | | | -[ACAccount aa_repairState]
118908 ms | | | | | -[ACAccount parentAccount]
118908 ms | | | | | -[ACAccount accountPropertyForKey:0x1e8b42bf0]
118908 ms | | -[AAURLSession dataTaskWithRequest:0x28100a090 completion:0x1701c6e40]
118908 ms | | | -[AAURLSession _enqueueRequest:0x28100a090 completion:0x1701c6e40]
118908 ms | | | | -[AKAppleIDSession initWithIdentifier:0x281cc6fa0]
118908 ms | | | | | -[AAURLSessionContext _initRequiringSigning:0x0 appleIDSession:0x2
807c83c0]
118908 ms | | -[AAURLSession _sessionQueue_enqueueTask:0x120376ee0 completion:0x281d00720]
/* TID 0xc533 */
118910 ms | -[AAURLSessionContext URLSession:0x10401f340 task:0x120376ee0 getAppleIDHe
adersForResponse:0x0 completionHandler:0x16fe7e650]
118910 ms | | -[AKAppleIDSession URLSession:0x10401f340 task:0x1203769e0 getAppleIDHe
adersForResponse:0x0 completionHandler:0x16fe7e5c0]
118910 ms | | | -[AKAppleIDSession _generateAppleIDHeadersForSessionTask:0x1203769
e0 withCompletion:0x16fe7e538]
118910 ms | | | | -[AKAppleIDSession _nativeAnisetteController]
118910 ms | | | | | -[AKAnisetteProvisioningController init]
118910 ms | | | | | -[AKAnisetteProvisioningController anisetteDataForURLRequest:
0x28100df0 completion:0x16fe7e428]
118910 ms | | | | | | -[AKAnisetteProvisioningController fetchAnisetteDataAndP
rovisionIfNecessary:0x1 withCompletion:0x16fe7e428]
118910 ms | | | | | | | -[AKAnisetteProvisioningController _anisetteService
Connection]
118910 ms | | | | | | | +[AKAnisetteProvisioningDaemonInterface XPCInt
erface]
118910 ms | | | | | | | +[AKAnisetteProvisioningClientInterface XPCInt
erface]
/* TID 0xf427 */
118911 ms | | -[AAUIProfilePictureStore pictureDiameter]
118911 ms | -[AACloudServiceOwner accountForService:0x1ecb2df10]
118912 ms | | +[AACloudServiceOwner _serviceTypeForPlatform]
118912 ms | | | -[ACAccountStore aa_primaryAppleAccount]
118912 ms | | | | -[ACAccountStore accountsWithAccountTypeIdentifiers:0x281025dc0 pr
eloadedProperties:0x0 error:0x0]
118912 ms | | | | | -[ACAccountStore remoteAccountStoreSession]
118912 ms | | | | | | -[ACTimedExpirer scheduleExpiration:0x170626410]

```

```

118912 ms | | | | | -[ACTimedExpirer _unsafeCancelTimer]
118912 ms | | | | -[ACRemoteAccountStoreSession synchronousRemoteObjectProxyWithErrorHandler:0x1706263f0]
118912 ms | | | | | -[ACRemoteAccountStoreSession _connection]
118918 ms | | | | -[ACAccount _setAccountStore:0x283916df0]
118918 ms | | | | | -[ACAccountType setAccountStore:0x283916df0]
118918 ms | | | | -[ACAccount description]
118918 ms | | | | | -[ACAccount username]
118918 ms | | | | | | -[ACAccount _useParentForCredentials]
118918 ms | | | | | | | -[ACAccount authenticationType]
118918 ms | | | | | | -[ACAccount identifier]
118918 ms | | | | -[ACAccount aa_isAccountClass:0x1e8b42a50]
118918 ms | | | | | -[ACAccount aa_accountClass]
118918 ms | | | | | | -[ACAccount objectForKeyedSubscript:0x1e8b42c10]
118918 ms | | | | | | | -[ACAccount accountPropertyForKey:0x1e8b42c10]
118918 ms | | | | -[ACAccount userFullName]
118918 ms | | | | | -[ACAccount objectForKeyedSubscript:0x1e7417798]
118918 ms | | | | | | -[ACAccount accountPropertyForKey:0x1e7417798]
118918 ms | | | | -[ACAccount objectForKeyedSubscript:0x1e74177d8]
118918 ms | | | | | -[ACAccount accountPropertyForKey:0x1e74177d8]
118919 ms | | | | -[ACAccount objectForKeyedSubscript:0x1e7417798]
118919 ms | | | | | -[ACAccount accountPropertyForKey:0x1e7417798]
118919 ms | | | | -[ACAccount objectForKeyedSubscript:0x1e74177b8]
118919 ms | | | | | -[ACAccount accountPropertyForKey:0x1e74177b8]
118919 ms | | | | -[ACAccount objectForKeyedSubscript:0x1e74177d8]
118919 ms | | | | | -[ACAccount accountPropertyForKey:0x1e74177d8]
/* TID 0x1251f */
118919 ms +[AKAnisetteData supportsSecureCoding]
118919 ms -[AKAppleIDSession _genericAppleIDHeadersDictionaryForRequest:0x28100dfd0]
/* TID 0xf427 */
118919 ms -[ACAccount isSubscriber]
118919 ms | | -[ACAccount accountPropertyForKey:0x1ed6c7680]
/* TID 0x1251f */
118920 ms | | +[AKDevice currentDevice]
118920 ms | | | -[AKDevice locale]
118920 ms -[AKAnisetteData machineID]
118920 ms -[AKAnisetteData oneTimePassword]
118920 ms -[AKAnisetteData routingInfo]
118921 ms +[AKDevice currentDevice]
118921 ms -[AKDevice localUserUUID]
118921 ms +[AKConfiguration sharedConfiguration]
118921 ms -[AKConfiguration shouldAllowTestApplication]
118921 ms | | -[AKConfiguration configurationValueForKey:0x1e8b17ff8]
118921 ms -[AKAppleIDSession _pairedDeviceAnisetteController]
118921 ms -[AAURLSessionContext _additionalHeadersForRequest:0x281025f50 completion:0x170482270]
118921 ms | | -[AAURLSessionContext requiresSigning]
/* TID 0xc533 */
118921 ms +[NSError _web_errorWithDomain:0x1f61f0440 code:0xfffffffffffffff19 URL:0x283993c60]
118921 ms | | -[NSError _web_initWithDomain_nowarn:0x1f61f0440 code:0xfffffffffffffff19 URL:0x283993c60]
118921 ms | | | -[NSError initWithDomain:0x1f61f0440 code:0xfffffffffffffff19 userInfo:0x281691260]
118921 ms | | | | -[NSError userInfo]
118921 ms | | | -[NSError domain]

```

```

118921 ms -[NSError code]
118921 ms -[NSError domain]
118921 ms -[NSError code]
118921 ms -[NSError userInfo]
118921 ms -[NSError userInfo]
/* TID 0xf427 */
118921 ms -[AAUIProfilePictureStore profilePictureForAccountOwnerWithoutMonogramFallback]
118921 ms | -[ACAccount isEnabledForDataclass:0x1e74165f8]
118921 ms | | -[ACAccount enabledDataclasses]
118921 ms | | | -[ACAccount parentAccount]
118921 ms | -[ACAccount aa_personID]
118921 ms | | -[ACAccount accountPropertyForKey:0x1e8b42670]
118921 ms | +[AAUIServerSuppliedProfilePictureCache sharedCache]
118921 ms | -[AAUIServerSuppliedProfilePictureCache profilePictureForPersonID:0x281
64eb60 diameter:0x1706267b0 serverFetchBlock:0x8]
118921 ms | | -[AAUIServerSuppliedProfilePictureCache _ensureMinimumPictureDiameter_mustBeSynchronized:0xf427]
118921 ms | | | -[AAUIServerSuppliedProfilePictureCacheEntry description]
/* TID 0xc533 */
118921 ms -[NSError domain]
118922 ms -[NSError code]
118922 ms +[NSError errorWithDomain:0x1f61f0440 code:0xfffffffffffffc19 userInfo:0x281
6a06c0]
118922 ms | -[NSError initWithDomain:0x1f61f0440 code:0xfffffffffffffc19 userInfo:0
x2816a06c0]
118922 ms -[NSError code]
118922 ms -[NSError code]
118922 ms -[NSError description]
118922 ms | -[NSError userInfo]
118922 ms | -[NSError domain]
118922 ms | -[NSError userInfo]
118922 ms | -[NSError domain]
118922 ms | -[NSError userInfo]
118922 ms | -[NSError userInfo]
118922 ms | -[NSError domain]
118922 ms | -[NSError code]
/* TID 0xf427 */
118922 ms | | -[AAUIServerSuppliedProfilePictureCacheEntry picture]
118922 ms | | -[AAUIServerSuppliedProfilePictureCacheEntry updating]
118922 ms -[AAUIProfilePictureStore profilePictureForAccountOwner]
118922 ms | -[AAUIProfilePictureStore profilePictureForAccountOwnerWithoutMonogramFallback]
118922 ms | | -[ACAccount isEnabledForDataclass:0x1e74165f8]
118922 ms | | | -[ACAccount enabledDataclasses]
118922 ms | | | | -[ACAccount parentAccount]
118922 ms | | | -[ACAccount aa_personID]
118922 ms | | | | -[ACAccount accountPropertyForKey:0x1e8b42670]
118922 ms | | +[AAUIServerSuppliedProfilePictureCache sharedCache]
118922 ms | | | -[AAUIServerSuppliedProfilePictureCache profilePictureForPersonID:
0x28164eb60 diameter:0x170626760 serverFetchBlock:0x8]
118922 ms | | | | -[AAUIServerSuppliedProfilePictureCache _ensureMinimumPictureDiameter_mustBeSynchronized:0xf427]
118922 ms | | | | -[AAUIServerSuppliedProfilePictureCacheEntry description]
118922 ms | | | | -[AAUIServerSuppliedProfilePictureCacheEntry picture]
118922 ms | | | | -[AAUIServerSuppliedProfilePictureCacheEntry updating]

```

```

118922 ms | -[ACAccount aa(firstName]
118922 ms |   | -[ACAccount accountPropertyForKey:0x1e8b3c550]
118922 ms |   | -[ACAccount aa(lastName]
118922 ms |   | -[ACAccount accountPropertyForKey:0x1e8b3c570]
118922 ms |   | -[AAUIProfilePictureStore _fallbackProfilePictureForPersonWithFirstName
:0x28164d340 lastName:0x28164f8a0]
118922 ms |   | -[AAUIProfilePictureStore _monogrammer]
118922 ms |   | -[AAUIProfilePictureStore pictureDiameter]
/* TID 0xf107 */
118969 ms -[ACAccount _setObjectID:0x2839a8230]
118969 ms -[ACAccount _clearCachedChildAccounts]
118969 ms -[ACAccount _setAccountStore:0x2839f4a10]
118969 ms | -[ACAccountType setAccountStore:0x2839f4a10]
118969 ms -[ACAccount _clearDirtyProperties]
118969 ms | -[ACTrackedSet allObjects]
118969 ms | -[ACTrackedSet initWithArray:0x281690840]
118969 ms |   | -[ACTrackedSet _initWithEnumerable:0x281690840 count:0x22]
118969 ms |   | | -[ACTrackedSet initWithObjects:0x12962ddb0 count:0x22]
118969 ms | -[ACTrackedSet allObjects]
118969 ms | -[ACTrackedSet initWithArray:0x281690940]
118969 ms |   | -[ACTrackedSet _initWithEnumerable:0x281690940 count:0x3]
118969 ms |   | | -[ACTrackedSet initWithObjects:0x281690dc0 count:0x3]
118969 ms | -[ACAccountCredential _clearDirtyProperties]
118969 ms -[ACAccountStore _unsanitizeError:0x0]
/* TID 0x1251f */
118969 ms -[AASignInFlowController _addKeysAndEnrollCDPStateForAccount:0x282b408c0 wit
hCDPContext:0x282558580 completion:0x281d08510]
118969 ms | -[AASignInFlowController _enrollCDPStateForAccount:0x282b408c0 withCDP
ontext:0x282558580 completion:0x281d08510]
/* TID 0xf107 */
119050 ms -[ACAccountStoreClientSideListener accountCredentialsDidChangeForAccountWith
Identifier:0x2807dba40]
/* TID 0x103 */
119051 ms -[ACMonitoredAccountStore credentialsChangedNotification:0x281690da0]
119051 ms | -[ACMonitoredAccountStore monitoredAccountWithIdentifier:0x2807dba40]
119051 ms -[ACAccount credentialsChanged:0x281690da0]
119051 ms | -[ACAccount identifier]
119051 ms -[ACAccount credentialsChanged:0x281690da0]
119051 ms | -[ACAccount identifier]
/* TID 0xf107 */
119473 ms -[AAURLSession URLSession:0x10401f340 task:0x120376ee0 didCompleteWithError:
0x0]
119473 ms | -[AAURLSession _sessionQueue_dequeueTask:0x120376ee0 withResponse:0x281
6a24e0 error:0x0]
119473 ms | | -[AARequest _handleDataTaskCompletionWithData:0x0 response:0x2816a
24e0 error:0x0]
119474 ms | | | +[AAMyPhotoRequest responseClass]
119475 ms | | | -[AAPhotoResponse initWithHTTPResponse:0x2816a24e0 data:0x0]
119475 ms | | | | -[AAResponse initWithHTTPResponse:0x2816a24e0 data:0x0]
119475 ms | | | | -[AAResponse initWithHTTPResponse:0x2816a24e0 data:
0x0 bodyIsPlist:0x1]
119476 ms | | | | | -[AAResponse _parsePlistResponse:0x0]
119476 ms | | | | | -[AAResponse responseDictionary]
119476 ms | | | | | -[AAResponse responseDictionary]
119477 ms | | | | | -[AAResponse error]
119477 ms | | | | | +[NSError errorWithDomain:0x1e8b3abf0 code:0x1

```

```

94 userInfo:0x2816a31e0]
119477 ms | | | | | | | -[NSError initWithDomain:0x1e8b3abf0 code
:0x194 userInfo:0x2816a31e0]
119477 ms | | | | | | | -[AAResponse setError:0x281d60db0]
119477 ms | | | | | -[AAResponse data]
119477 ms | | | | -[AAResponse statusCode]
119478 ms | | | | +[AAUIServerSuppliedProfilePictureCache sharedCache]
119478 ms | | | | -[AAUIServerSuppliedProfilePictureCache updateProfilePicture:
0x0 didReceiveNewPicture:0x1 serverCacheTag:0x0 forPersonID:0x28164eb60]
119478 ms | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry description
]
119478 ms | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry setUpdating
:0x0]
119478 ms | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry picture]
119479 ms | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry setPicture:
0x0]
119479 ms | | | | | -[AAUIServerSuppliedProfilePictureCacheEntry description
]

/* TID 0x103 */
124786 ms -[AAUISpinnerViewController viewWillDisappear:0x1]
124860 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
124860 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
124869 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
124869 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
124870 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
124870 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
124899 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
124899 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
124913 ms +[NSError errorWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
124913 ms | -[NSError initWithDomain:0x1e856c458 code:0x191 userInfo:0x0]
/* TID 0xf427 */
141362 ms -[ACTimedExpirer _cancelTimer]
141363 ms | -[ACTimedExpirer _unsafeCancelTimer]
141363 ms -[ACAccountStoreClientSideListener connectionWasInvalidated]
146495 ms -[ACTimedExpirer _cancelTimer]
146495 ms | -[ACTimedExpirer _unsafeCancelTimer]
146496 ms -[ACAccountStoreClientSideListener connectionWasInvalidated]
149545 ms -[ACTimedExpirer _cancelTimer]
149549 ms | -[ACTimedExpirer _unsafeCancelTimer]
149549 ms -[ACAccountStoreClientSideListener connectionWasInvalidated]
/* TID 0x11c3b */
149549 ms -[ACTimedExpirer _cancelTimer]
149549 ms | -[ACTimedExpirer _unsafeCancelTimer]
149550 ms -[ACAccountStoreClientSideListener connectionWasInvalidated]

```

# Android

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## 常用命令举例

此处列出，Frida的frida-trace去hook安卓的app时，常用的具体命令：

```

frida-trace -U -n system_server --runtime=v8 -j '*ActivityManagerService!'

frida-trace -U -n system_server --runtime=v8 -j '*handleProcessStartedLocked!'

frida-trace -U -n system_server --runtime=v8 -j '*ActivityManager!*' -j '*!startProcess
Locked' -j '*!handleProcessStartedLocked'

frida-trace -U -n system_server --runtime=v8 -j '*ActivityManager!*' -j '*!startProcess
Locked' -j '*!handleProcessStartedLocked' -J '*!checkComponentPermission'

frida-trace -U -n system_server --runtime=v8 -j '*ActivityManager!*' -j '*!startProces
sLocked*' -j '*!handleProcessStartedLocked*' -J '*!checkComponentPermission'

frida-trace -U -N com.wallpaper.hd.funny --runtime=v8 -j '*ActivityManager!*' -j '*!st
artProcessLocked*' -j '*!handleProcessStartedLocked*' -J '*!checkComponentPermission'

frida-trace -U -n system_server --runtime=v8 -j '*!startInstrumentation'

frida-trace -U -n system_server --runtime=v8 -j '*!bindService'
frida-trace -U -n system_server --runtime=v8 -j '*!bindService' -j '*!handleProcessStar
tedLocked'

frida-trace -U -n system_server --runtime=v8 -j '*!startService' -j '*!handleProcessSta
rtedLocked' -j '*!forceStopPackage'

frida-trace -U -N com.wallpaper.hd.funny --runtime=v8 -j '*!execTransact' -j '*!onTrans
act'

frida-trace -U -N com.wallpaper.hd.funny -i 'onTransact'

frida-trace -U -i 'onTransact' -p 21925

frida-trace -U -N com.wallpaper.hd.funny -i '*onTransact*'

frida-trace -U -n system_server -i '*onTransact*'

frida-trace -U -n system_server --runtime=v8 -j '*!startService' -j '*!handleProcessSta
rtedLocked' -j '*!forceStopPackage' -J '*!checkComponentPermission' -i '*onTransact*'

```

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## 安卓系统进程system\_server

此处列出frida-trace去hook安卓系统进程system\_server的效果：

去hook：

- 类的全部函数
  - ActivityManager
- 类的部分函数
  - ProcessList
  - ActivityManagerService

命令：

```
frida-trace -U -n system_server --runtime=v8 -j '*ActivityManager*' -j '*IstartProcessLocked*' -j '*IhandleProcessStartedLocked'
```

测试和触发：

测试了2次进程被杀和重启

```
redfin:/ # ps -A | grep lift
u0_a243      14053 12478 14853776 110652 do_epoll_wait      0 S com.lift.filemanager.an
droid:sist
u0_a243      14380 12478 33445164 159208 do_epoll_wait      0 S com.lift.filemanager.an
droid
u0_a243      16957 12478 14876024 110164 do_epoll_wait      0 S com.lift.filemanager.an
droid:lift
u0_a243      20739 12478 14909548 110300 do_epoll_wait      0 S com.lift.filemanager.an
droid:dae
redfin:/ # kill 16957
redfin:/ # ps -A | grep lift
u0_a243      28151 26549 14881452 110076 do_epoll_wait      0 S com.lift.filemanager.an
droid:sist
u0_a243      28164 26549 14828204 109280 do_epoll_wait      0 S com.lift.filemanager.an
droid:dae
u0_a243      28337 26549 33535192 167804 do_epoll_wait      0 S com.lift.filemanager.an
droid
u0_a243      30398 26549 14895600 112296 do_epoll_wait      0 S com.lift.filemanager.an
droid:lift
redfin:/ # kill 28164
redfin:/ # ps -A | grep lift
u0_a243      2519 26549 14968296 108068 do_epoll_wait      0 S com.lift.filemanager.an
droid:dae
u0_a243      28151 26549 14881452 108304 do_epoll_wait      0 S com.lift.filemanager.an
droid:sist
u0_a243      28337 26549 33482836 166176 do_epoll_wait      0 S com.lift.filemanager.an
droid
u0_a243      30398 26549 14878116 110572 do_epoll_wait      0 S com.lift.filemanager.an
droid:lift
redfin:/ # kill 30398
```

log:

```

→ frida git:(master) ✘ frida-trace -U -n system_server --runtime=v8 -j '*ActivityManager*' -j '*IstartProcessLocked' -j '*IhandleProcessStartedLocked'
Instrumenting...
NfcActivityManager.$init: Loaded handler at "/Users/crifan/dev/dev_root/androidReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/__handlers__/android.nfc.NfcActivityManager/_init.js"
...
IACTIVITYMANAGER.addInstrumentationResults: Loaded handler at "/Users/crifan/dev/dev_root/androidReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/__handlers__/android.app.IACTIVITYMANAGER/addInstrumentationResults.js"
...
ActivityManager.-$Nest$smgetTaskService: Loaded handler at "/Users/crifan/dev/dev_root/androidReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/__handlers__/android.app.ActivityManager/__Nest_smgetTaskService.js"
ActivityManager.$init: Loaded handler at "/Users/crifan/dev/dev_root/androidReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/__handlers__/android.app.ActivityManager/_init.js"
ActivityManager.broadcastStickyIntent: Loaded handler at "/Users/crifan/dev/dev_root/androidReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/__handlers__/android.app.ActivityManager/broadcastStickyIntent.js"
...
ActivityManagerService.startProcessLocked: Loaded handler at "/Users/crifan/dev/dev_root/androidReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/__handlers__/com.android.server.am.ActivityManagerService/startProcessLocked.js"
Started tracing 375 functions. Press Ctrl+C to stop.
    /* TID 0x71c9 */
    1223 ms ActivityManager.checkUidPermission("android.permission.INTERACT_ACROSS_USERS_FULL", 10241)
    1227 ms <= -1
...
11257 ms ActivityManager.checkComponentPermission("android.permission.GET_TASKS", 10241, -1, true)
11257 ms <= 0
    /* TID 0x6880 */
12225 ms ActivityManagerService.startProcessLocked("com.lift.filemanager.android:dae", "<instance: android.content.pm.ApplicationInfo>", true, 0, "<instance: com.android.server.am.HostingRecord>", 0, false, false)
12230 ms | ProcessList.startProcessLocked("com.lift.filemanager.android:dae", "<instance: android.content.pm.ApplicationInfo>", true, 0, "<instance: com.android.server.am.HostingRecord>", 0, false, false, 0, false, 0, null, null, null, null, null)
12232 ms | | ProcessList.startProcessLocked("<instance: com.android.server.am.ProcessRecord>", "<instance: com.android.server.am.HostingRecord>", 0, null)
12233 ms | | | ProcessList.startProcessLocked("<instance: com.android.server.am.ProcessRecord>", "<instance: com.android.server.am.HostingRecord>", 0, false, false, null)
12234 ms | | | | ProcessList.startProcessLocked("<instance: com.android.server.am.HostingRecord>", "android.app.ActivityThread", "<instance: com.android.server.am.ProcessRecord>", 10243, [3002,3003,50243,20243,9997], 17377280, 0, 1, "default:targe
tSdkVersion=33:complete", "arm64-v8a", "arm64", null, "371714070", "371714070")
12235 ms | | | | | <= true
12235 ms | | | | <= true

```

```

12235 ms      |    | <= true
12236 ms      |    <= "<instance: com.android.server.am.ProcessRecord>" 
12236 ms    <= "<instance: com.android.server.am.ProcessRecord>" 
/* TID 0x6881 */
12272 ms  ProcessList.handleProcessStartedLocked("<instance: com.android.server.am.ProcessRecord>", "<instance: android.os.Process$ProcessStartResult>", "132")
12273 ms      |  ProcessList.handleProcessStartedLocked("<instance: com.android.server.am.ProcessRecord>", 2519, false, "132", false)
12274 ms      |    <= true
12274 ms    <= true
/* TID 0x71c8 */
12368 ms  ActivityManager.processStateAmToProto(4)

...
62818 ms  ActivityManager.isForegroundService(8)
62818 ms    <= false
62818 ms  ActivityManager.processStateAmToProto(19)
62818 ms    <= 1018
62818 ms  ActivityManager.isForegroundService(19)
62819 ms    <= false
/* TID 0x6880 */
63812 ms  ActivityManagerService.startProcessLocked("com.lift.filemanager.android:lift"
, "<instance: android.content.pm.ApplicationInfo>", true, 0, "<instance: com.android.server.am.HostingRecord>", 0, false, false)
63818 ms      |  ProcessList.startProcessLocked("com.lift.filemanager.android:lift", "<instance: android.content.pm.ApplicationInfo>", true, 0, "<instance: com.android.server.am.HostingRecord>", 0, false, false, 0, false, 0, null, null, null, null, null)
63823 ms      |      ProcessList.startProcessLocked("<instance: com.android.server.am.ProcessRecord>", "<instance: com.android.server.am.HostingRecord>", 0, null)
63826 ms      |      |  ProcessList.startProcessLocked("<instance: com.android.server.am.ProcessRecord>", "<instance: com.android.server.am.HostingRecord>", 0, false, false, null)
63834 ms      |      |      |  ProcessList.startProcessLocked("<instance: com.android.server.am.HostingRecord>", "android.app.ActivityThread", "<instance: com.android.server.am.ProcessRecord>", 10243, [3002,3003,50243,20243,9997], 17377280, 0, 1, "default:targe
tSdkVersion=33:complete", "arm64-v8a", "arm64", null, "371765665", "371765665")
63838 ms      |      |      | <= true
63839 ms      |      |      | <= true
63840 ms      |      |      <= true
63841 ms    <= "<instance: com.android.server.am.ProcessRecord>" 
63843 ms    <= "<instance: com.android.server.am.ProcessRecord>" 
/* TID 0x6881 */
63861 ms  ProcessList.handleProcessStartedLocked("<instance: com.android.server.am.ProcessRecord>", "<instance: android.os.Process$ProcessStartResult>", "133")
63862 ms      |  ProcessList.handleProcessStartedLocked("<instance: com.android.server.am.ProcessRecord>", 2782, false, "133", false)
63863 ms      |    <= true
63863 ms    <= true
/* TID 0x71c9 */
63927 ms  ActivityManager.processStateAmToProto(4)

...

```

## 截图：

```
搜索资源管理器 ... ↗ hook_systemServer_20230829.coffee U ↗ hook_systemServer_20230829_ActivityManager_allFunc.coffee U ↗ hook_systemServer_20230829_AMSClassFunc.coffee U

dynamicDebug / frida : result > hook_systemServer_20230829_AMSClassFunc.coffee

1 1 frida git:(master) ✘ frida-trace -U -n in_system_server --runtime w -j --ActivityManager='.' -j --startProcessLocked='.' -j --handleProcessStartedLocked='.'
2 2 InactivityManager.sinit: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_handlers/_/inactivityManager.sinit"
3 3 NfcActivityManager.sinit: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.createBeaconShareData": Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.createBeaconShareData"
4 4 NfcActivityManager.destroyActivityState: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.destroyActivityState"
5 5 NfcActivityManager.disableReaderMode: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.disableReaderMode"
6 6 NfcActivityManager.enableReaderMode: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.enableReaderMode"
7 7 NfcActivityManager.findActivityState: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.findActivityState"
8 8 NfcActivityManager.findAppHandle: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.findAppHandle"
9 9 NfcActivityManager.findResumedActivityState: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.findResumedActivityState"
10 10 NfcActivityManager.getBeaconShareData: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.getBeaconShareData"
11 11 NfcActivityManager.onActivityDestroyed: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.onActivityDestroyed"
12 12 NfcActivityManager.onActivityPaused: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.onActivityPaused"
13 13 NfcActivityManager.onActivityResumed: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.onActivityResumed"
14 14 NfcActivityManager.onActivityPaused: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.onActivityPaused"
15 15 NfcActivityManager.onActivityResumed: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.onActivityResumed"
16 16 NfcActivityManager.onActivitySaveInstanceState: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.onActivitySaveInstanceState"
17 17 NfcActivityManager.onActivityStop: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.onActivityStop"
18 18 NfcActivityManager.onActivityStopped: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.onActivityStopped"
19 19 NfcActivityManager.onPushCompleted: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.onPushCompleted"
20 20 NfcActivityManager.onPushError: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.onPushError"
21 21 NfcActivityManager.registerApplication: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.registerApplication"
22 22 NfcActivityManager.requestMemoryWarning: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.requestMemoryWarning"
23 23 NfcActivityManager.setPushContentUri: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.setPushContentUri"
24 24 NfcActivityManager.setPushContentUriCallback: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.setPushContentUriCallback"
25 25 NfcActivityManager.setPushError: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.setPushError"
26 26 NfcActivityManager.setPushErrorMessage: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.setPushErrorMessage"
27 27 NfcActivityManager.setPushMessageCallback: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.setPushMessageCallback"
28 28 NfcActivityManager.setHeadlessMode: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.setHeadlessMode"
29 29 NfcActivityManager.verifySignature: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.verifySignature"
30 30 NfcActivityManager.verifySignatureWithFingerprint: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/NfcActivityManager.verifySignatureWithFingerprint"
31 31 ActivityManager.addInstrumentationResults: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.addInstrumentationResults"
32 32 ActivityManager.addPackageDependency: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.addPackageDependency"
33 33 ActivityManager.appNotResponding: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.appNotResponding"
34 34 ActivityManager.appNotRespondingByLabelProvider: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.appNotRespondingByLabelProvider"
35 35 ActivityManager.attachApplication: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.attachApplication"
36 36 ActivityManager.backgroundActivityList: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.backgroundActivityList"
37 37 ActivityManager.bringBackgroundToFront: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.bringBackgroundToFront"
38 38 ActivityManager.bringToBackground: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.bringToBackground"
39 39 ActivityManager.bindService: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.bindService"
40 40 ActivityManager.bindServiceInstance: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.bindServiceInstance"
41 41 ActivityManager.bootAnimationComplete: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.bootAnimationComplete"
42 42 ActivityManager.broadcastIntent: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.broadcastIntent"
43 43 ActivityManager.broadcastIntentWithFeature: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.broadcastIntentWithFeature"
44 44 ActivityManager.cancelIntentSender: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.cancelIntentSender"
45 45 ActivityManager.cancelLocalBroadcast: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.cancelLocalBroadcast"
46 46 ActivityManager.checkAndStartForegroundService: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.checkAndStartForegroundService"
47 47 ActivityManager.checkForPermission: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.checkForPermission"
48 48 ActivityManager.checkForPermissions: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.checkForPermissions"
49 49 ActivityManager.clearApplicationUserData: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.clearApplicationUserData"
50 50 ActivityManager.closeSystemDialogs: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.closeSystemDialogs"
51 51 ActivityManager.crashApplicationWithType: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.crashApplicationWithType"
52 52 ActivityManager.crashApplicationWithTypeWithXtras: Loaded handler at "/Users/crifan/dev/_root/_andriodReverse/keepAlive/LiftFileManager/dynamicDebug/frida/frida/_h/ActivityManager.crashApplicationWithTypeWithXtras"

行 1,1 空格 2,2 逗号 3,3 LF 4,4 CoffeeScript 5,5 F5
```

The screenshot shows a Java decompiler interface with the following details:

- File:** hook\_systemServer\_20230829.java
- Method:** ActivityManagerService.startProcessLocked
- Line Number:** 1777
- Code:**

```
ActivityManagerService.startProcessLocked("com.lift.filmanager.android:lift", <instance: android.content.pm.ApplicationInfo>, true, 0, <instance: com.android.server.am.ProcessRecord>, <instance: com.android.server.am.HostingRecords>, 0, null)
```
- Call Stack:** The stack shows multiple calls to startProcessLocked across different process lists and hosting records.
- Annotations:** Various annotations like `U`, `M`, and `U` are present throughout the code.
- Toolbars:** Standard Java decompiler toolbars for navigating code, searching, and refactoring.

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## Frida工具类函数

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## 通用js函数

此处整理Frida的js中，通用的js方面的函数：

### 小的代码段

#### 判断主字符串是否包含子字符串

- 概述：用 str 的 includes

```
mainString.includes(subString)
```

- 详解

测试代码：

```
var mainStr = "Stack: X.0Pru.LIZ(Native Method)"
var subStr = "X.0Pru.LIZ"
var isMatch = mainStr.includes(subStr)
console.log("isMatch=" + isMatch)
```

输出：

```
isMatch true
```

#### 判断字符串是否在dict的key中

- 判断key是否在字典dict中

```
curKey in someDict
```

举例：

```
let cfgPrintOnceStackExceptionDict = {
    // key: arg list(arg0, arg1, ...)
    "+[NSURLRequest requestWithURL:]": [],
    "+[WAURLQueryItem queryItemWithName:value:]": ["ENC", undefined],
}

var iOSObjCallStr = "+[WAURLQueryItem queryItemWithName:value:]"
var isMatch = iOSObjCallStr in cfgPrintOnceStackExceptionDict
console.log("isMatch=" + isMatch)
```

输出： isMatch=true

#### 获取列表的子列表

```
var argList = [0, 1, 2, 3, 4]
var subArgList = argList.slice(2)
console.log("argList=" + argList + " -> subArgList=" + subArgList)
```

输出：

```
argList=0,1,2,3,4 -> subArgList=2,3,4
```

## 函数默认参数

定义=写法 举例：

```
function printFunctionCallAndStack(funcName, funcParaDict, ThrowablesCls, filterList=undefined){
    ...
    if (filterList != undefined) {
        ...
    }
}
```

调用：

- 不传递（带默认参数值的）最后一个参数

```
printFunctionCallAndStack(funcName, funcParaDict, ThrowablesCls)
```

- 传递（带默认参数值的）最后一个参数

```
printFunctionCallAndStack(funcName, funcParaDict, ThrowablesCls, ["X.OPrv.LIZ"])
```

## 对象=Object: Dict/List/...

### toJsonStr : 转换成JSON字符串（用于打印js对象）

```
// convert Object(dict/list/...) to JSON string
function toJsonStr(curObj, singleLine=false, space=2){
    // console.log("toJsonStr: singleLine=" + singleLine)
    // var jsonStr = JSON.stringify(curObj, null, 2)
    var jsonStr = JSON.stringify(curObj, null, space)
    if(singleLine) {
        // jsonStr = jsonStr.replace(/\n/g, '')
        jsonStr = jsonStr.replace(/\n/g, '')
    }
    return jsonStr
    // return curObj.toString()
}
```

用法举例：

```
console.log("Add: address=" + address + ", moduleInfoDict=" + toJsonStr(moduleInfoDict)
+ " into cache gAddrToModuleInfoDict")
```

输出：

```
[*] Add: address 0x1098ad910, moduleInfoDict={
  "fileName": "/private/var/containers/Bundle/Application/02BED373-87F5-4B48-9F4B-70E85
3B20267/WhatsApp.app/Frameworks/SharedModules.framework/SharedModules",
  "fileAddress": "0x108c84000",
  "symbolName": "WAGetWCIMhttpImpl",
  "symbolAddress": "0x1098abad0"
} into cache gAddrToModuleInfoDict
```

## String字符串

### occurrences : 字符串搜索

```
/** Function that count occurrences of a substring in a string;
 * @param {String} string                  The string
 * @param {String} subString                The sub string to search for
 * @param {Boolean} [allowOverlapping]     Optional. (Default:false)
 *
 * @author Vitim.us https://gist.github.com/victornpb/7736865
 * @see Unit Test https://jsfiddle.net/Victornpb/5axuh96u/
 * @see https://stackoverflow.com/a/7924240/938822
 * @example occurrences("- setExportedObject:", ":") => 1
 */
function occurrences(string, subString, allowOverlapping) {
  // console.log("string=" + string + ",subString=" + subString + ", allowOverlapping=" + allowOverlapping)
  string += "";
  subString += "";
  if (subString.length <= 0) return (string.length + 1);

  var n = 0,
    pos = 0,
    step = allowOverlapping ? 1 : subString.length;

  while (true) {
    pos = string.indexOf(subString, pos);
    // console.log("pos=" + pos)
    if (pos >= 0) {
      n++;
      pos += step;
    } else break;
  }

  return n;
}
```

用法举例：

```
const argSel = args[1];
console.log("argSel: ", argSel);
const argSelStr = ObjC.selectorAsString(argSel);
console.log("argSelStr: ", argSelStr);

const argCount = occurrences(argSelStr, ":" );
console.log("argCount: ", argCount);
```

输出：

```
argSel: 0x19cf48d27
argSelStr: fileURLWithPath:isDirectory:
argCount: 2
```

含义：

(iOS的ObjC中的SEL) 字符串： fileURLWithPath:isDirectory: 中有2个冒号 :

## String - Log日志

```
// Generate single line log string
// input: logStr="Called: -[NSURLRequest initWithURL:]"
// output: "===== Called: -[NSURLRequest initWithURL:] ====="
=====

// function generateLineStr(logStr, isWhiteSpace=true, paddingChar=="=", linewidth=80){
function generateLineStr(logStr, isWhiteSpace true, paddingChar=="=", linewidth=100){
// function generateLineStr(logStr, isWhiteSpace=true, paddingChar=="=", linewidth=120){
    // console.log("logStr=" + logStr, ", isWhiteSpace=" + isWhiteSpace + ", paddingChar=" +
    " + paddingChar + ", linewidth=" + linewidth)
    var lineStr = ""

    var realLogStr = ""
    if (isWhiteSpace) {
        realLogStr = " " + logStr + " "
    } else {
        realLogStr = logStr
    }

    var realLogStrLen = realLogStr.length
    if ((realLogStrLen % 2) > 0){
        realLogStr += " "
        realLogStrLen = realLogStr.length
    }

    var leftRightPaddingStr = ""
    var paddingLen = linewidth - realLogStrLen
    if (paddingLen > 0) {
        var leftRightPaddingLen = paddingLen / 2
        leftRightPaddingStr = times(paddingChar, leftRightPaddingLen)
    }
}
```

```
    lineStr = leftRightPaddingStr + realLogStr + leftRightPaddingStr  
  
    // console.log("lineStr:\n" + lineStr)  
    return lineStr  
}
```

用法举例：

```
var logStr="Called: -[NSURLRequest initWithURL:]"  
generateLineStr(logStr)
```

输出：

```
===== Called: -[NSURLRequest initWithURL:] =====  
=====
```

其他输出举例：

```
===== Called: +[WARegistrationURLBuilder preChatdABPropURLWithPhoneNumber:abHash:]  
=====  
  
===== Called: +[NSURLRequest requestWithURL:] =====  
=====
```

## times：字符串相乘

代码：

```
// String multiple  
// eg: str="", num=5 => "====="  
function times(str, num){  
    return new Array(num + 1).join(str)  
}
```

用法举例：

```
var paddingChar = "="  
var leftRightPaddingLen = 10  
var leftRightPaddingStr = times(paddingChar, leftRightPaddingLen)  
console.log(leftRightPaddingStr)
```

输出：

```
=====
```

## List列表

## isItemInList: 判断元素是否在列表中

```
// check whether is item inside the list
// eg: curItem="abc", curList=["abc", "def"] => true
function isItemInList(curItem, curList){
    // method1:
    return curList.includes(curItem)
    // // method2:
    // return curList.indexOf(curItem) > -1
}
```

用法举例：

```
var iOSObjCallStr = "+[NSURLRequest requestWithURL:]"
let cfgPrintOnceStackExceptionList = [
    "+[NSURLRequest requestWithURL:]",
]

console.log(isItemInList(iOSObjCallStr, cfgPrintOnceStackExceptionList))
```

输出：

```
true
```

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## Frida的js通用函数

### objcArgsToArray

```
/* Convert args to real Javascript Array

Note:
    Interceptor.attach onEnter(args), args is not real JS array -> later operation
will fail
    args.slice(2)
    Array.from(args)
-> so need here to conver to real Array, then all is OK
*/
function objcArgsToArray(args, realArgCount){
    var argsArr = Array()
    // console.log("initial: argsArr=" + argsArr)
    argsArr.push(args[0])
    argsArr.push(args[1])
    // console.log("add frist two: argsArr=" + argsArr)

    for (let curArgIdx = 0; curArgIdx < realArgCount; curArgIdx++) {
        const curArg = args[curArgIdx + 2]
        argsArr.push(curArg)
    }
    // console.log("add all args: argsArr=" + argsArr)
    return argsArr
}
```

用法举例：

```
Interceptor.attach(curMethod implementation, {
    onEnter: function(args) {
        const realArgCount = occurrences(funcName, ";")
        console.log("realArgCount: " + realArgCount)

        args = objcArgsToArray(args, realArgCount)
```

效果：

```
// 后续针对js的Array的args去操作，就不会报错了
var realArgList = args.slice(2)
```

详见：

- 【已解决】iOS逆向WhatsApp： Frida的js的函数堆栈打印优化：支持特定函数的特定参数值时打印
- 【已解决】Frida中js去获取Interceptor.attach的onEnter的args时报错： RangeError invalid array index

### isValidPointer：判断指针是否有效

- 背景：

- 正常的指针值：

- 0x194d20320
    - 0x103e79420
    - 0x2831ac880

- 异常的一些指针指：

- 0x0
    - 0xc

代码：

```
// check pointer is valid or not
// example
//           0x103e79560 => true
//           0xc => false
function isValidPointer(curPtr){
    let MinValidPointer = 0x10000
    var isValid = curPtr > MinValidPointer
    return isValid
}
```

用法举例：

```
console.log(isValidPointer(0xc))
```

输出：

```
false
```

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## iOS函数

此处整理Frida的js中，iOS（的ObjC）方面的函数：

### objcObjToStr : ObjC的Object转换为C的string

```
// convert ObjC Object to C string
function objcObjToStr(objcObj){
    return objcObj.toString()
}
```

### nsStrToJsStr : NSString转换为js的String

代码：

```
// NSString instance -> js string
function nsStrToJsStr(curNsStr){
    // method 1
    return curNsStr.UTF8String()
    // // method 2:
    // const NSUTF8StringEncoding = 4;
    // https://developer.apple.com/documentation/foundation/nsstring/1408489-cstringusingencoding?language=objc
    // return curNsStr.cStringUsingEncoding_(NSUTF8StringEncoding)
}
```

用法举例：

```
const connnServiceNameNSStr = nsxpcconnectionObj.serviceName();
const connnServiceNameJsStr = nsStrToJsStr(connnServiceNameNSStr)
console.log("connnServiceNameNSStr: ", connnServiceNameNSStr);
console.log("connnServiceNameJsStr: ", connnServiceNameJsStr);
```

输出：

```
connnServiceNameNSStr: com.apple.ak.auth.xpc
connnServiceNameJsStr: com.apple.ak.auth.xpc
```

### toiOSobjcCall : 把Frida的ObjC函数写法，转换成ObjC的函数写法

```
// convert from frida function call to ObjC function call
// "NSURL", "- initWithString:" => "-[NSURL initWithString:]"
function toiOSobjcCall(class_name, method_name){
    const instanceCallStart = "-[" + class_name + " ";
```

```

const classCallStart = "+" + class_name + " ";
var objcFuncCall = method_name.replace("-", instanceCallStart);
objcFuncCall = objcFuncCall.replace("+ ", classCallStart);
objcFuncCall = objcFuncCall + "]";
// console.log(class_name + " -> " + method_name + " => " + objcFuncCall);
return objcFuncCall;
}

```

用法举例：

```

function hook_specific_method_of_class(className, funcName)
{
    console.log("className=" + className + ", funcName=" + funcName)
    var iOSObjCallStr = toiOSObjcCall(className, funcName)
    console.log("iOSObjCallStr=", iOSObjCallStr)
    ...
}

```

输出：

```

className NSXPConnection, funcName - setExportedObject:
iOSObjCallStr= -[NSXPConnection setExportedObject:]

```

其他举例：

- "NSURL", "- \_cfurl" => "-[NSURL \_cfurl]"
- "NSURL", "+ fileURLWithPath:isDirectory:" => "+[NSURL fileURLWithPath:isDirectory:]"
- "NSURL", "- initFileURLWithPath:isDirectory:" => "-[NSURL initFileURLWithPath:isDirectory:]"

## toFridaObjcCall : 把ObjC函数写法，转换成Frida的ObjC函数写法

```

// convert from ObjC function call to frida function call
// "-[NSURL initWithString:]" => ["NSURL", "- initWithString:"]
function toFridaObjcCall(fridaObjcCallStr){
    // console.log("fridaObjcCallStr=" + fridaObjcCallStr)
    const funcCallP = /^([-+])\[(\w+)\s+([\w:]+)\]\$/;
    // console.log("funcCallP=" + funcCallP)
    const funcCallMatch = fridaObjcCallStr.match(funcCallP)
    // console.log("funcCallMatch=" + funcCallMatch)
    const objcFuncTypeChar = funcCallMatch[1]
    const objcClassName = funcCallMatch[2]
    const objcFuncName = funcCallMatch[3]
    const fridaFuncCallList = [objcClassName, objcFuncTypeChar + " " + objcFuncName]
    // console.log("fridaFuncCallList=" + fridaFuncCallList)
    return fridaFuncCallList
}

```

用法举例：

- 输入
  - "+[NSURL URLWithString:]"
  - "-[NSURLConnection start]"
  - "-[NSURL initWithString:relativeToURL:]"
- 输出
  - ["NSURL", "+ URLWithString:]"]
  - ["NSURLConnection", "- start"]]
  - ["NSURL", "- initWithString:relativeToURL:]"]

## initCommonLibFunctions : 初始化常用库中的常用函数

代码：

```

/*
 * Global Variables
 */

var free = null
var objc_getClass = null
var class_copyMethodList = null
var objc_getMetaClass = null
var method_getName = null
var daddr = null
var _dyld_image_count = null
var _dyld_get_image_name = null
var _dyld_get_image_vmaddr_slide = null
var objc_copyClassNamesForImage = null

/******************* iOS Common Lib Functions *******************/

function initCommonLibFunctions(){
    console.log("Init common functions in common libs:")

    // free
    free = new NativeFunction(
        Module.findExportByName(null, 'free'),
        'void',
        ['pointer']
    )
    console.log("free=" + free)

    objc_getClass = new NativeFunction(
        Module.findExportByName(null, 'objc_getClass'),
        'pointer',
        ['pointer']
    )
    console.log("objc_getClass=" + objc_getClass)

    class_copyMethodList = new NativeFunction(
        Module.findExportByName(null, 'class_copyMethodList'),
        'pointer',
        ['pointer']
    )
}

```

```

        ['pointer', 'pointer']
    )
console.log("class_copyMethodList=" + class_copyMethodList)

objc_getMetaClass = new NativeFunction(
    Module.findExportByName(null, 'objc_getMetaClass'),
    'pointer',
    ['pointer']
)
console.log("objc_getMetaClass=" + objc_getMetaClass)

method_getName = new NativeFunction(
    Module.findExportByName(null, 'method_getName'),
    'pointer',
    ['pointer']
)
console.log("method_getName=" + method_getName)

/*
int dladdr(const void *, Dl_info *);

typedef struct dl_info {
    const char      *dli_fname;      // Pathname of shared object
    void            *dli_fbase;      // Base address of shared object
    const char      *dli_sname;      // Name of nearest symbol
    void            *dli_saddr;      // Address of nearest symbol
} Dl_info;

*/
dladdr = new NativeFunction(
    Module.findExportByName(null, 'dladdr'),
    'int',
    ['pointer', 'pointer']
)
console.log("dladdr=" + dladdr)

// uint32_t _dyld_image_count(void)
_dyld_image_count = new NativeFunction(
    Module.findExportByName(null, '_dyld_image_count'),
    'uint32',
    []
)
console.log("_dyld_image_count=" + _dyld_image_count)

// const char* _dyld_get_image_name(uint32_t image_index)
_dyld_get_image_name = new NativeFunction(
    Module.findExportByName(null, '_dyld_get_image_name'),
    'pointer',
    ['uint32']
)
console.log("_dyld_get_image_name=" + _dyld_get_image_name)

// intptr_t _dyld_get_image_vmaddr_slide(uint32_t image_index)
_dyld_get_image_vmaddr_slide = new NativeFunction(
    Module.findExportByName(null, '_dyld_get_image_vmaddr_slide'),
    'pointer',
    ['uint32']
)
console.log("_dyld_get_image_vmaddr_slide=" + _dyld_get_image_vmaddr_slide)

```

```

        'pointer',
        ['uint32']
    )
    console.log("_dyld_get_image_vmaddr_slide=" + _dyld_get_image_vmaddr_slide)

    // const char * objc_copyClassNamesForImage(const char *image, unsigned int *outCount)
    objc_copyClassNamesForImage = new NativeFunction(
        Module.findExportByName(null, 'objc_copyClassNamesForImage'),
        'pointer',
        ['pointer', 'pointer']
    );
    console.log("objc_copyClassNamesForImage=" + objc_copyClassNamesForImage)
}

```

用法举例：

```

/****************************************
 * Main
****************************************/
initCommonLibFunctions()

```

输出：

```

Init common functions in common libs:
free 0x190f57f10
objc_getClass 0x190f9c098
class_copyMethodList 0x190f96cf8
objc_getMetaClass 0x190f9c100
method_getName 0x190f93b54
dladdr 0x191068174
_dyld_image_count 0x191067b40
_dyld_get_image_name 0x19106806c
_dyld_get_image_vmaddr_slide 0x191068004
objc_copyClassNamesForImage 0x190f97e68

```

说明：

后续其他地方，即可调用这些函数：

```

free(pClasses)

function get_info_form_address(address){
    ...
    var dl_info = Memory.alloc(Process.pointerSize * 4);
    dladdr(ptr(address), dl_info)
}

```



## iOS函数调用堆栈

对于Frida中，打印iOS函数调用堆栈，此处整理出2个函数：

- 地址版本 = 精简版： `printFunctionCallStack_addr`
  - 解释：（尤其是对于自己的二进制）只能输出地址，无法输出完整精确的符号名
    - 优点：代码简洁
    - 缺点：只有地址，没有符号，不够用
- 符号版本 = 详细版： `printFunctionCallStack_symbol`
  - 解释：从地址解析后得到准确的符号=函数名的版本
    - 优点：能看到函数名=解析后的符号名，更好用
    - 缺点：代码比较多比较复杂
  - 包括子函数
    - `get_image_vm_slide`
    - `get_all_objc_class`
    - `get_all_class_methods`
    - `get_info_form_address`
    - `find_symbol_from_address`
  - 说明
    - 参考自
      - <https://github.com/4ch12dy/FridaLib/blob/master/iOS/iOSFridaLib.js>
    - 且做了额外优化
      - 加上cache缓存，提高解析速度

### `printFunctionCallStack_addr`

```
function printFunctionCallStack_addr(curContext){
  console.log('Stack:\n' +
    Thread.backtrace(curContext, Backtracer.ACCURATE)
      .map(DebugSymbol.fromAddress).join('\n') + '\n');
}
```

用法举例：

```
Interceptor.attach(curMethod implementation, {
  onEnter: function(args) {
    printFunctionCallStack_addr(this.context)
```

输出：

```
Stack:
0x109af910 SharedModules WAGetWCIHttpImpl
0x106a14cb4 0x2304cb4 (0x102304cb4)
0x1062e9ff4 0x1bd9ff4 (0x101bd9ff4)
0x1062e9f80 0x1bd9f80 (0x101bd9f80)
0x1069da1fc 0x22ca1fc (0x1022ca1fc)
```

```

0x1069d9ee4 0x22c9ee4 (0x1022c9ee4)
0x1069d16a8 0x22c16a8 (0x1022c16a8)
0x1952e99ac UIKitCore -[UIApplication sendAction:to:from:forEvent:]
0x194d1ffbc UIKitCore -[UIControl sendAction:to:forEvent:]
0x194d20320 UIKitCore -[UIControl _sendActionsForEvents:withEvent:]
0x194d1f33c UIKitCore -[UIControl touchesEnded:withEvent:]
0x195323050 UIKitCore -[UIWindow _sendTouchesForEvent:]
0x195324390 UIKitCore -[UIWindow sendEvent:]
0x195300a9c UIKitCore -[UIApplication sendEvent:]
0x1061487b8 0x1a387b8 (0x101a387b8)
0x195378c20 UIKitCore __dispatchPreprocessedEventFromEventQueue

```

## printFunctionCallStack\_symbol

代码：

```

/*********************************************
 * Config & Settings
********************************************/

// Print Function Stack Call
let isUseCache = true

// print only once stack for every function
let isPrintOnlyOnceStack = true

let cfgPrintOnceStackExceptionList = [
    "+[NSURLRequest requestWithURL:]",
]

/*********************************************
 * Global Variables
********************************************/


var gPrintedStackDict = {}

var gAddrToModuleInfoDict = {}
var gModulePathToSlideDict = {}
var gModulePathToClassesDict = {}
var gModulePathAddrToSymbolDict = {}
var gClassnameToAllMethodsDict = {}


var free = null
var objc_getClass = null
var class_copyMethodList = null
var objc_getMetaClass = null
var method_getName = null
var dladdr = null
var _dyld_image_count = null
var _dyld_get_image_name = null
var _dyld_get_image_vmaddr_slide = null
var objc_copyClassNamesForImage = null

```

```

***** iOS Common Lib Functions *****

function initCommonLibFunctions(){
    console.log("Init common functions in common libs:")

    // free
    free = new NativeFunction(
        Module.findExportByName(null, 'free'),
        'void',
        ['pointer']
    )
    console.log("free=" + free)

    objc_getClass = new NativeFunction(
        Module.findExportByName(null, 'objc_getClass'),
        'pointer',
        ['pointer']
    )
    console.log("objc_getClass=" + objc_getClass)

    class_copyMethodList = new NativeFunction(
        Module.findExportByName(null, 'class_copyMethodList'),
        'pointer',
        ['pointer', 'pointer']
    )
    console.log("class_copyMethodList=" + class_copyMethodList)

    objc_getMetaClass = new NativeFunction(
        Module.findExportByName(null, 'objc_getMetaClass'),
        'pointer',
        ['pointer']
    )
    console.log("objc_getMetaClass=" + objc_getMetaClass)

    method_getName = new NativeFunction(
        Module.findExportByName(null, 'method_getName'),
        'pointer',
        ['pointer']
    )
    console.log("method_getName=" + method_getName)

/*
int dladdr(const void *, Dl_info *);

typedef struct Dl_info {
    const char      *dli_fname;      // Pathname of shared object
    void            *dli_fbase;      // Base address of shared object
    const char      *dli_sname;      // Name of nearest symbol
    void            *dli_saddr;      // Address of nearest symbol
} Dl_info;

*/
dladdr = new NativeFunction(
    Module.findExportByName(null, 'dladdr'),
    'int',

```

```

        ['pointer','pointer']
    )
    console.log("dIaddr=" + dIaddr)

    // uint32_t _dyld_image_count(void)
    _dyld_image_count = new NativeFunction(
        Module.findExportByName(null, '_dyld_image_count'),
        'uint32',
        []
    )
    console.log("_dyld_image_count=" + _dyld_image_count)

    // const char* _dyld_get_image_name(uint32_t image_index)
    _dyld_get_image_name = new NativeFunction(
        Module.findExportByName(null, '_dyld_get_image_name'),
        'pointer',
        ['uint32']
    )
    console.log("_dyld_get_image_name=" + _dyld_get_image_name)

    // intptr_t _dyld_get_image_vmaddr_slide(uint32_t image_index)
    _dyld_get_image_vmaddr_slide = new NativeFunction(
        Module.findExportByName(null, '_dyld_get_image_vmaddr_slide'),
        'pointer',
        ['uint32']
    )
    console.log("_dyld_get_image_vmaddr_slide=" + _dyld_get_image_vmaddr_slide)

    // const char * objc_copyClassNamesForImage(const char *image, unsigned int *outCount)
    objc_copyClassNamesForImage = new NativeFunction(
        Module.findExportByName(null, 'objc_copyClassNamesForImage'),
        'pointer',
        ['pointer', 'pointer']
    );
    console.log("objc_copyClassNamesForImage=" + objc_copyClassNamesForImage)
}

// https://github.com/4ch12dy/FridaLib/blob/master/ios/iosFridaLib.js

// xia0 log
function XLOG(log) {
    console.log("[*] " + log)
}

// format string with width
function format(str,width){
    str = str + ""
    var len = str.length;

    if(len > width){
        return str
    }

    for(var i = 0; i < width - len; i++){

```

```

        str += " "
    }
    return str
}

function getExecFileName(modulePath){
    modulePath += ""
    return modulePath.split("/").pop()
}

// get module info from address
function getInfoFromAddress(address){
    var moduleInfoDict = null
    var needAddToCache = false

    if (isUseCache){
        if (address in gAddrToModuleInfoDict){
            moduleInfoDict = gAddrToModuleInfoDict[address]
            // XLOG("Found: address=" + address + " in gAddrToModuleInfoDict, moduleInfoDict=" + toJsonStr(moduleInfoDict))
            return moduleInfoDict
        } else {
            needAddToCache = true
        }
    }

    var dl_info = Memory.alloc(Process.pointerSize * 4);

    dladdr(ptr(address), dl_info)

    var dli_fname = Memory.readCString(Memory.readPointer(dl_info))
    var dli_fbase = Memory.readPointer(dl_info.add(Process.pointerSize))
    var dli_sname = Memory.readCString(Memory.readPointer(dl_info.add(Process.pointerSize * 2)))
    var dli_saddr = Memory.readPointer(dl_info.add(Process.pointerSize * 3))

    //XLOG("dli_fname:"+dli_fname)
    //XLOG("dli_fbase:"+dli_fbase)
    //XLOG("dli_sname:"+dli_sname)
    //XLOG("dli_saddr:"+dli_saddr)

    // var addrInfo = new Array();

    // addrInfo.push(dli_fname);
    // addrInfo.push(dli_fbase);
    // addrInfo.push(dli_sname);
    // addrInfo.push(dli_saddr);

    // //XLOG(addrInfo)
    // return addrInfo;

    moduleInfoDict = {
        "fileName": dli_fname,
        "fileAddress": dli_fbase,
        "symbolName": dli_sname,
        "symbolAddress": dli_saddr,
    }
}

```

```

    }

    if (needAddToCache){
        // XLOG("Add: address=" + address + ", moduleInfoDict=" + toJsonStr(moduleInfoDict) + " into cache gAddrToModuleInfoDict")
        gAddrToModuleInfoDict[address] = moduleInfoDict
    }

    return moduleInfoDict
}

function get_image_vm_slide(modulePath){
    var moduleSlide = 0

    var needAddToCache = false

    if (isUseCache){
        if (modulePath in gModulePathToSlideDict){
            moduleSlide = gModulePathToSlideDict[modulePath]
            // XLOG("Found: modulePath=" + modulePath + " in gModulePathToSlideDict, moduleSlide=" + moduleSlide)
            return moduleSlide
        } else {
            needAddToCache = true
        }
    }

    var image_count = _dyld_image_count()

    for (var i = 0; i < image_count; i++) {
        var image_name_ptr = _dyld_get_image_name(i)
        var image_slide_ptr = _dyld_get_image_vmaddr_slide(i)
        var image_name = Memory.readUtf8String(image_name_ptr)

        if (image_name == modulePath) {
            //XLOG(Memory.readUtf8String(image_name_ptr) + " slide:" + image_slide_ptr)
            // return image_slide_ptr
            moduleSlide = image_slide_ptr
            break
        }
        //XLOG(Memory.readUtf8String(image_name_ptr) + " slide:" + image_slide_ptr)
    }

    // return 0

    if (needAddToCache){
        // XLOG("Add: modulePath=" + modulePath + ", moduleSlide=" + moduleSlide + " into cache gModulePathToSlideDict")
        gModulePathToSlideDict[modulePath] = moduleSlide
    }

    return moduleSlide
}

```

```

function get_all_objc_class(modulePath){
    var classes = new Array()

    var needAddToCache = false

    if (isUseCache){
        if (modulePath in gModulePathToClassesDict){
            classes = gModulePathToClassesDict[modulePath]
            // XLOG("Found: modulePath=" + modulePath + " in gModulePathToClassesDict,
            classes=" + classes)
            // XLOG("Found: modulePath=" + modulePath + " in gModulePathToClassesDict,
            classes.length=" + classes.length)
            return classes
        } else {
            needAddToCache = true
        }
    }

    // if given modulePath nil, default is mainBundle
    if( modulePath){
        var path = ObjC.classes.NSBundle.mainBundle().executablePath().UTF8String()
    }else{
        var path = modulePath
    }

    // create args
    var pPath = Memory.allocUtf8String(path)
    var p = Memory.alloc(Process.pointerSize)
    Memory.writeUInt(p, 0)

    var pClasses = objc_copyClassNamesForImage(pPath, p)
    var count = Memory.readUInt(p)
    classes = new Array(count)

    for (var i = 0; i < count; i++) {
        var pClassName = Memory.readPointer(pClasses.add(i * Process.pointerSize))
        classes[i] = Memory.readUtf8String(pClassName)
    }

    free(pClasses)

    if (needAddToCache){
        // XLOG("Add: modulePath=" + modulePath + ", classes=" + classes + " into cache
        gModulePathToClassesDict")
        // XLOG("Add: modulePath=" + modulePath + ", classes.length=" + classes.length
        + " into cache gModulePathToClassesDict")
        gModulePathToClassesDict[modulePath] = classes
    }

    // XLOG(classes)
    return classes
}

function get_all_class_methods(classname){
    var allMethods = new Array()

```

```

var needAddToCache = false

if (isUseCache){
    if (classname in gClassnameToAllMethodsDict){
        allMethods = gClassnameToAllMethodsDict[classname]
        // XLOG("Found: classname=" + classname + " in gClassnameToAllMethodsDict,
allMethods=" + toJsonStr(allMethods))
        // XLOG("Found: classname=" + classname + " in gClassnameToAllMethodsDict,
allMethods.length=" + allMethods.length)
        return allMethods
    } else {
        needAddToCache = true
    }
}

// get objclass and metaclass
var name = Memory.allocUtf8String(classname)
var objClass = objc_getClass(name)
var metaClass = objc_getMetaClass(name)

// get obj class all methods
var size_ptr = Memory.alloc(Process.pointerSize)
Memory.writeUInt(size_ptr, 0)
var pObjMethods = class_copyMethodList(objClass, size_ptr)
var count = Memory.readUInt(size_ptr)

var allObjMethods = new Array()

// get obj class all methods name and IMP
for (var i = 0; i < count; i++) {
    var curObjMethod = new Array()
    var pObjMethodSEL = method_getName(pObjMethods.add(i * Process.pointerSize))
    var pObjMethodName = Memory.readCString(Memory.readPointer(pObjMethodSEL))
    var objMethodIMP = Memory.readPointer(pObjMethodSEL.add(2 * Process.pointerSize))
    // XLOG("-["+classname+ " " + pObjMethodName+"]" + ":" + objMethodIMP)
    curObjMethod.push(pObjMethodName)
    curObjMethod.push(objMethodIMP)
    allObjMethods.push(curObjMethod)
}

var allMetaMethods = new Array()

// get meta class all methods name and IMP
var pMetaMethods = class_copyMethodList(metaClass, size_ptr)
var count = Memory.readUInt(size_ptr)
for (var i = 0; i < count; i++) {
    var curMetaMethod = new Array()

    var pMetaMethodSEL = method_getName(pMetaMethods.add(i * Process.pointerSize))
    var pMetaMethodName = Memory.readCString(Memory.readPointer(pMetaMethodSEL))
    var metaMethodIMP = Memory.readPointer(pMetaMethodSEL.add(2 * Process.pointerSize))
}

//XLOG("-["+classname+ " " + pMetaMethodName+"]" + ":" + metaMethodIMP)
curMetaMethod.push(pMetaMethodName)
curMetaMethod.push(metaMethodIMP)

```

```

        allMetaMethods.push(curMetaMethod)
    }

    allMethods.push(allObjMethods)
    allMethods.push(allMetaMethods)

    free(pObjMethods)
    free(pMetaMethods)

    if (needAddToCache){
        // XLOG("Add: classname=" + classname + ", allMethods=" + toJsonStr(allMethods)
        // + " into cache gclassnameToAllMethodsDict")
        // XLOG("Add: classname=" + classname + ", allMethods.length=" + allMethods.length
        // + " into cache gclassnameToAllMethodsDict")
        gclassnameToAllMethodsDict[classname] = allMethods
    }

    return allMethods
}

function find_symbol_from_address(modulePath, addr){
    var symbol = "???"
    var modulePathAddr = modulePath + "|" + addr

    var needAddToCache = false

    if (isUseCache){
        if (modulePathAddr in gModulePathAddrToSymbolDict){
            symbol = gModulePathAddrToSymbolDict[modulePathAddr]
            // XLOG("Found: modulePathAddr=" + modulePathAddr + " in gModulePathAddrToSymbolDict, symbol=" + symbol)
            return symbol
        } else {
            needAddToCache = true
        }
    }

    var frameAddr = addr
    var theDis = 0xffffffffffffffffffff
    var tmpDis = 0
    var theClass = "None"
    var theMethodName = "None"
    var theMethodType = "."
    var theMethodIMP = 0

    var allClassInfo = {}

    var allClass = getAll_objc_class(modulePath)

    for(var i = 0, len = allClass.length; i < len; i++){
        var curClassName = allClass[i]
        // var mInfo = getAll_class_method(curClassName)
        var mInfo = getAll_class_methods(curClassName)

        var objms = mInfo[0]
        for(var j = 0, olen = objms.length; j < olen; j++){
            if (objms[j].addr == frameAddr && objms[j].dis == theDis && objms[j].tmpDis == tmpDis && objms[j].class == theClass && objms[j].method == theMethodName && objms[j].type == theMethodType && objms[j].imp == theMethodIMP){
                symbol = objms[j].symbol
                break
            }
        }
    }
}

```

```

        var mname = objms[j][0]
        var mIMP = objms[j][1]
        if(frameAddr >= mIMP){
            var tmpDis = frameAddr - mIMP
            if(tmpDis < theDis){
                theDis = tmpDis
                theClass = curClassName
                theMethodName = mname
                theMethodIMP = mIMP
                theMethodType = "-"
            }
        }

        var metams = mInfo[1]
        for(var k = 0, mlen = metams.length, k < mlen; k++){
            var mname = metams[k][0]
            var mIMP = metams[k][1]
            if(frameAddr >= mIMP){
                var tmpDis = frameAddr - mIMP
                if(tmpDis < theDis){
                    theDis = tmpDis
                    theClass = curClassName
                    theMethodName = mname
                    theMethodIMP = mIMP
                    theMethodType = "+"
                }
            }
        }
    }

    symbol = theMethodType + "[" + theClass + " " + theMethodName + "]"

    if(symbol.indexOf(".cxx") != -1){
        symbol = "maybe C function?"
    }

    // if distance > 3000, maybe a c function
    if(theDis > 3000){
        symbol = "maybe C function? symbol:" + symbol
    }

    if (needAddToCache){
        // XLOG("Add: modulePathAddr=" + modulePathAddr + ", symbol=" + symbol + " into
        cache gModulePathAddrToSymbolDict")
        gModulePathAddrToSymbolDict[modulePathAddr] = symbol
    }

    return symbol
}

function generateFunctionCallStackList(context){
    var functionCallList = new Array()

    var mainPath = ObjC.classes.NSBundle mainBundle().executablePath().UTF8String()

```

```

// XLOG("mainPath=" + mainPath)
var mainModuleName = getExecFileName(mainPath)
// XLOG("mainModuleName=" + mainModuleName)

var backtrace = Thread.backtrace(context, Backtracer.ACCURATE).map(DebugSymbol.from
Address)
for (var i = 0; i < backtrace.length; i++) {
    // curStackFrame=0x10a1d1910 SharedModules!WAGetWCIHttpImpl
    // curStackFrame=0x1070f0cb4 !0x2304cb4 (0x102304cb4)
    // curStackFrame=0x1944a9614 /System/Library/Frameworks/CFNetwork.framework/CFN
etwork+[NSURLRequest requestWithURL:]
    var curStackFrame = backtrace[i] + ' '
    // XLOG("curStackFrame=" + curStackFrame)

    // var curSym = curStackFrame.split("!")[1]
    var stackFrameSplittedArr = curStackFrame.split("!")
    var curAddrAndModuleStr = stackFrameSplittedArr[0]
    // XLOG("curAddrAndModuleStr=" + curAddrAndModuleStr)
    var curSym = stackFrameSplittedArr[1]
    // XLOG("curSym=" + curSym)

    // var curAddr = curStackFrame.split("!")[0].split(" ")[0]
    var curAddrAndModuleArr = curAddrAndModuleStr.split(" ")
    // XLOG("curAddrAndModuleArr=" + curAddrAndModuleArr)
    var curAddr = curAddrAndModuleArr[0]
    // XLOG("curAddr=" + curAddr)
    // var curModuleName = curStackFrame.split("!")[0].split(" ")[1]
    var curModuleName = curAddrAndModuleArr[1]
    // XLOG("curModuleName=" + curModuleName)

    var moduleInfoDict = getInfoFromAddress(curAddr);
    // XLOG("moduleInfoDict=" + toJsonStr(moduleInfoDict))

    var curModulePath = moduleInfoDict["fileName"]
    // XLOG("curModulePath=" + curModulePath)
    var fileAddress = moduleInfoDict["fileAddress"]
    // XLOG("fileAddress=" + fileAddress)
    var symbolName = moduleInfoDict["symbolName"]
    // XLOG("symbolName=" + symbolName)
    var symbolAddress = moduleInfoDict["symbolAddress"]
    // XLOG("symbolAddress=" + symbolAddress)

    // skip frida call stack
    if( curModulePath){
        XLOG("! Omit for empty module path, parsed from curAddr=" + curAddr + ", mo
duleInfoDict=" + moduleInfoDict)
        continue
    }

    // var fileAddr = curAddr - getImageVmSlide(curModulePath);
    var curModuleSlide = getImageVmSlide(curModulePath)
    // XLOG("curModuleSlide=" + curModuleSlide)
    var fileAddr = curAddr - curModuleSlide
    // XLOG("fileAddr=" + fileAddr)

```

```

    // is the image in app dir?
    if (curModulePath.indexOf(mainModuleName) != -1) {
        curSym = find_symbol_from_address(curModulePath, curAddr)
        // XLOG("new curSym=" + curSym)
    }

    var curFunctionCallDict = {
        "curModulePath": curModulePath,
        "curAddr": curAddr,
        "fileAddr": fileAddr,
        "curSym": curSym,
    }
    functionCallList.push(curFunctionCallDict)
}

return functionCallList
}

function generateFunctionCallStackStr(functionCallList){
    var functionCallStackStr = "----- printFunctionCallStack_symbol\n-----"
    functionCallStackStr += "\n"
    for (var i = 0; i < functionCallList.length; i++){
        var curFunctionCallDict = functionCallList[i]
        var curModulePath = curFunctionCallDict["curModulePath"]
        var curAddr = curFunctionCallDict["curAddr"]
        var fileAddr = curFunctionCallDict["fileAddr"]
        var curSym = curFunctionCallDict["curSym"]
        var executableFilename = getExecFileName(curModulePath)
        let execMaxWidth = 20
        // let execMaxWidth = 25
        var curFuncCallStr = format(i, 4)+format(executableFilename, execMaxWidth)+"mem
;" +format(ptr(curAddr),13)+"file:" +format(ptr(fileAddr),13)+format(curSym,80)
        functionCallStackStr += curFuncCallStr + "\n"
    }
    functionCallStackStr += "-----\n-----"
    return functionCallStackStr
}

function printFunctionCallStack_symbol(context){
    var functionCallStackList = generateFunctionCallStackList(context)
    var functionCallStackStr = generateFunctionCallStackStr(functionCallStackList)
    console.log(functionCallStackStr)
    return functionCallStackStr
}

```

调用举例：

```

*****  

* Main  

*****  

initCommonLibFunctions()

```

```

    ...
    Interceptor.attach(curMethod.implementation, {
        onEnter: function(args) {
            // console.log("==== [*] Detected call to: " +
iosObjCallStr);
            var logstr = "Called: " + iosObjCallStr
            var lineStr = generateLineStr(logstr)
            console.log(lineStr)

            var shouldPrintStack = true
            if (iosObjCallStr in gPrintedStackDict){
                // console.log("iosObjCallStr=" + iosObjCallStr + " in gPrintedStackDict=" + toJsonStr(gPrintedStackDict.keys))
                if (isPrintOnlyOnceStack){
                    // if (iosObjCallStr in cfgPrintOnceStackExceptionList){

                        if (isItemInList(iosObjCallStr, cfgPrintOnceStackExceptionList)){
                            // console.log("iosObjCallStr=" + iosObjCallStr + " in cfgPrintOnceStackExceptionList=" + toJsonStr(cfgPrintOnceStackExceptionList))
                            shouldPrintStack = true
                        } else {
                            shouldPrintStack = false
                        }
                    }
                }
            }

            // console.log("shouldPrintStack=" + shouldPrintStack)

            if (shouldPrintStack) {
                // printFunctionCallStack_addr(this.context)

                // printFunctionCallStack_symbol(this.context)
                var functionCallStackList = generateFunctionCallStackList(this.context)
                var functionCallStackStr = generateFunctionCallStackStr(functionCallStackList)
                console.log(functionCallStackStr)

                gPrintedStackDict[iosObjCallStr] = functionCallStackStr
            }
        ...
    })
}

```

(相关) 输出:

- 新
  - 图

```
[iPhone::WhatsApp] -> [*] Detected call to: +[NSURLRequest requestWithURL:]  
[*] ===== xbacktrace =====  
[*] 0 SharedModules mem:0x109cb1910 file:0xc29910 +[WACertPinning sharedPi  
nnedWhatsAppCertificateWithoutDomainValidation]  
[*] 1 WhatsApp mem:0x106d74cb4 file:0x102304cb4 +[WARegistrationURLBuild  
er preChatdABPropURLRequestWithPhoneNumber:abHash:]  
[*] 2 WhatsApp mem:0x106649ff4 file:0x101bd9ff4 -[WACompanionModeGatingM  
anager fetchPhoneCompanionAbPropValue:]  
[*] 3 WhatsApp mem:0x106649f80 file:0x101bd9f80 -[WACompanionModeGatingM  
anager shouldShowPhoneCompanionEntryPointWithCompletion:]  
[*] 4 WhatsApp mem:0x106d3a1fc file:0x1022ca1fc -[WAVerificationRegistrat  
ionController fetchPhoneCompanionEntryPointPreChatdAbProp]  
[*] 5 WhatsApp mem:0x106d39ee4 file:0x1022c9ee4 -[WAVerificationRegistrat  
ionController didAcceptedTOSMoveToNextScreen]  
[*] 6 WhatsApp mem:0x106d316a8 file:0x1022c16a8 -[WAConsumerWelcomeViewC  
ontroller acceptAction:]  
[*] 7 UIKitCore mem:0x1952e99ac file:0x1845199ac -[UIApplication sendAction
```

```

on:to:from:forEvent:]
[*] 8 UIKitCore      mem:0x194d1ffbc file:0x183f4ffbc -[UIControl sendAction:t
o:forEvent:]
[*] 9 UIKitCore      mem:0x194d20320 file:0x183f50320 -[UIControl _sendActions
ForEvents:withEvent:]
[*] 10 UIKitCore     mem:0x194d1f33c file:0x183f4f33c -[UIControl touchesEnded
:withEvent:]
[*] 11 UIKitCore     mem:0x195323050 file:0x184553050 -[UIWindow _sendTouchesF
orEvent:]
[*] 12 UIKitCore     mem:0x195324390 file:0x184554390 -[UIWindow sendEvent:]
[*] 13 UIKitCore     mem:0x195300a9c file:0x184530a9c -[UIApplication sendEven
t:]
[*] 14 WhatsApp      mem:0x1064a87b8 file:0x101a387b8 -[WAApplication sendEven
t:]
[*] 15 UIKitCore     mem:0x195378c20 file:0x1845a8c20 __dispatchPreprocessedEv
entFromEventQueue
[*]

=====
argCount: 1
----- [0] curArgPtr 0x2838aa180
curArgPtrObj: className= NSURL, value= https://v.whatsapp.net/v2/reg_onboard_abprop?cc=1
&in=21555550000&rc=0
----- [*] Detected call to: -[NSURLRequest initWithURL:]
[*] ===== xbacktrace =====

[*] 0 CFNetwork       mem:0x1944a9614 file:0x1836d9614 +[NSURLRequest requestWi
thURL:]
[*] 1 SharedModules    mem:0x109cb1910 file:0xc29910 +[WACertPinning sharedPi
nnedWhatsAppCertificateWithoutDomainValidation]
[*] 2 WhatsApp         mem:0x106d74cb4 file:0x102304cb4 +[WARegistrationURLRequestBuild
er preChatdABPropURLRequestWithPhoneNumber:abHash:]
[*] 3 WhatsApp         mem:0x106649ff4 file:0x101bd9ff4 -[WACompanionModeGatingM
anager fetchPhoneCompanionAbPropValue:]
[*] 4 WhatsApp         mem:0x106649f80 file:0x101bd9f80 -[WACompanionModeGatingM
anager shouldShowPhoneCompanionEntryPointWithCompletion:]
[*] 5 WhatsApp         mem:0x106d3a1fc file:0x1022ca1fc -[WAVerificationRegistra
tionController fetchPhoneCompanionEntryPointPreChatdAbProp]
[*] 6 WhatsApp         mem:0x106d39ee4 file:0x1022c9ee4 -[WAVerificationRegistra
tionController didAcceptedTOSMoveToNextScreen]
[*] 7 WhatsApp         mem:0x106d316a8 file:0x1022c16a8 -[WAConsumerWelcomeViewC
ontroller acceptAction:]
[*] 8 UIKitCore        mem:0x1952e99ac file:0x1845199ac -[UIApplication sendActi
on:to:from:forEvent:]
[*] 9 UIKitCore        mem:0x194d1ffbc file:0x183f4ffbc -[UIControl sendAction:t
o:forEvent:]
[*] 10 UIKitCore       mem:0x194d20320 file:0x183f50320 -[UIControl _sendActions
ForEvents:withEvent:]
[*] 11 UIKitCore       mem:0x194d1f33c file:0x183f4f33c -[UIControl touchesEnded
:withEvent:]
[*] 12 UIKitCore       mem:0x195323050 file:0x184553050 -[UIWindow _sendTouchesF
orEvent:]
[*] 13 UIKitCore       mem:0x195324390 file:0x184554390 -[UIWindow sendEvent:]
[*] 14 UIKitCore       mem:0x195300a9c file:0x184530a9c -[UIApplication sendEven
t:]
[*] 15 WhatsApp        mem:0x1064a87b8 file:0x101a387b8 -[WAApplication sendEven
t:]

```

```

[*] -----
argCount: 1
----- [0] curArgPtr: 0x2838aa180
curArgPtrObj: className= NSURL, value= https://v.whatsapp.net/v2/reg_onboard_abprop?cc=1
&in=21555500000rc=0
===== [*] Detected call to: -[NSMutableURLRequest initWithURL:]
[*] xbacktrace
=====

[*] 0 CFNetwork mem:0x1944a9614 file:0x1836d9614 +[NSURLRequest requestWithURL:]
[*] 1 SharedModules mem:0x109cb1910 file:0xc29910 +[WACertPinning sharedPinnedWhatsAppCertificateWithoutDomainValidation]
[*] 2 WhatsApp mem:0x106d74cb4 file:0x102304cb4 +[WARegistrationURLBuilder preChatdABPropURLRequestWithPhoneNumber:abHash:]
[*] 3 WhatsApp mem:0x106649ff4 file:0x101bd9ff4 -[WACompanionModeGatingManager fetchPhoneCompanionAbPropValue:]
[*] 4 WhatsApp mem:0x106649f80 file:0x101bd9f80 -[WACompanionModeGatingManager shouldShowPhoneCompanionEntryPointWithCompletion:]
[*] 5 WhatsApp mem:0x106d3a1fc file:0x1022ca1fc -[WAVerificationRegistrationController fetchPhoneCompanionEntryPointPreChatdAbProp]
[*] 6 WhatsApp mem:0x106d39eee4 file:0x1022c9eee4 -[WAVerificationRegistrationController didAcceptedTOSMoveToNextScreen]
[*] 7 WhatsApp mem:0x106d316a8 file:0x1022c16a8 -[WAConsumerWelcomeViewController acceptAction:]
[*] 8 UIKitCore mem:0x1952e99ac file:0x1845199ac -[UIApplication sendAction:on:to:from:forEvent:]
[*] 9 UIKitCore mem:0x194d1ffbc file:0x183f4ffbc -[UIControl sendAction:to:forEvent:]
[*] 10 UIKitCore mem:0x194d20320 file:0x183f50320 -[UIControl _sendActionsForEvents:withEvent:]
[*] 11 UIKitCore mem:0x194d1f33c file:0x183f4f33c -[UIControl touchesEnded:withEvent:]
[*] 12 UIKitCore mem:0x195323050 file:0x184553050 -[UIWindow _sendTouchesForEvent:]
[*] 13 UIKitCore mem:0x195324390 file:0x184554390 -[UIWindow sendEvent:]
[*] 14 UIKitCore mem:0x195300a9c file:0x184530a9c -[UIApplication sendEvent:]
[*] 15 WhatsApp mem:0x1064a87b8 file:0x101a387b8 -[WAApplication sendEvent:]
[*] -----


argCount: 1
----- [0] curArgPtr: 0x2838aa180
curArgPtrObj: className= NSURL, value= https://v.whatsapp.net/v2/reg_onboard_abprop?cc=1
&in=21555500000rc=0
===== [*] Detected call to: -[NSURLRequest initWithURL:cachePolicy:timeoutInterval:]
[*] xbacktrace
=====

[*] 0 CFNetwork mem:0x1944a9614 file:0x1836d9614 +[NSURLRequest requestWithURL:]
[*] 1 SharedModules mem:0x109cb1910 file:0xc29910 +[WACertPinning sharedPinnedWhatsAppCertificateWithoutDomainValidation]
[*] 2 WhatsApp mem:0x106d74cb4 file:0x102304cb4 +[WARegistrationURLBuilder preChatdABPropURLRequestWithPhoneNumber:abHash:]
```

```

[*] 3 WhatsApp mem:0x106649ff4 file:0x101bd9ff4 - [WACompanionModeGatingManager fetchPhoneCompanionAbPropValue:]
[*] 4 WhatsApp mem:0x106649f80 file:0x101bd9f80 - [WACompanionModeGatingManager shouldShowPhoneCompanionEntryPointWithCompletion:]
[*] 5 WhatsApp mem:0x106d3a1fc file:0x1022ca1fc - [WAVerificationRegistrationController fetchPhoneCompanionEntryPointPreChatdAbProp]
[*] 6 WhatsApp mem:0x106d39ee4 file:0x1022c9ee4 - [WAVerificationRegistrationController didAcceptedTOSMoveToNextScreen]
[*] 7 WhatsApp mem:0x106d316a8 file:0x1022c16a8 - [WAConsumerWelcomeViewController acceptAction:]
[*] 8 UIKitCore mem:0x1952e99ac file:0x1845199ac - [UIApplication sendAction:on:to:from:forEvent:]
[*] 9 UIKitCore mem:0x194d1ffbc file:0x183f4ffbc - [UIControl sendAction:to:forEvent:]
[*] 10 UIKitCore mem:0x194d20320 file:0x183f50320 - [UIControl _sendActionsForEvents:withEvent:]
[*] 11 UIKitCore mem:0x194d1f33c file:0x183f4f33c - [UIControl touchesEnded:withEvent:]
[*] 12 UIKitCore mem:0x195323050 file:0x184553050 - [UIWindow _sendTouchesForEvent:]
[*] 13 UIKitCore mem:0x195324390 file:0x184554390 - [UIWindow sendEvent:]
[*] 14 UIKitCore mem:0x195300a9c file:0x184530a9c - [UIApplication sendEvent:]
[*] 15 WhatsApp mem:0x1064a87b8 file:0x101a387b8 - [WAApplication sendEvent:]
[*]

argCount: 3
----- [0] curArgPtr: 0x2838aa180
curArgPtrObj: className= NSURL, value= https://v.whatsapp.net/v2/reg_onboard_abprop?cc=1
&in=2155550000&rc=0
----- [1] curArgPtr: 0x0
----- [2] curArgPtr: 0x0
onLeave: retValObjStr: NSMutableURLRequest: 0x2814fa130 { URL: https://v.whatsapp.net/v2/reg_onboard_abprop?cc=1&in=2155550000&rc=0 }
----- [*] Detected call to: -[NSMutableURLRequest setHTTPBody:]
[*] ----- xbacktrace -----
[*] 0 CFNetwork mem:0x1944a7c10 file:0x1836d7c10 - [__NSCFLocalSessionTask _onqueue_strippedMutableRequest]
[*] 1 CFNetwork mem:0x1944c8c94 file:0x1836f8c94 0x25c94 (0x1836f8c94)
[*] 2 CFNetwork mem:0x1944a4b44 file:0x1836d4b44 - [__NSCFLocalSessionTask _onqueue_completeInitialization]
[*] 3 CFNetwork mem:0x1946d2188 file:0x183902188 0x22f188 (0x183902188)
[*] 4 libdispatch.dylib mem:0x190f2e610 file:0x18015e610 _dispatch_call_block_and_release
[*] 5 libdispatch.dylib mem:0x190f2f184 file:0x18015f184 _dispatch_client_callout
[*] 6 libdispatch.dylib mem:0x190edb404 file:0x18010b404 _dispatch_lane_serial_drain$VARIANT$mp
[*] 7 libdispatch.dylib mem:0x190edbe28 file:0x18010be28 _dispatch_lane_invoke$VA

```

```
RIANT$mp
[*] 8 libdispatch.dylib    mem:0x190ee5314  file:0x180115314 _dispatch_workloop_work
r_thread
[*] 9 libsystem_pthread.dylib mem:0x190f7eb88  file:0x1801aeb88 _pthread_wqthread
[*] =
```

---

```
argCount: 1
----- [0] curArgPtr 0x0
onLeave: retValObjStr nil
```

- 

11

```
crifan@crifanlifeMacBook-Pro:~/dev/_root/tools/reverse/WhatsApp/dynamicDebug/FridaFrida
~(zsh) 31 .MonkeyDevil (zsh) N2 .gFrida(Frida (zsh)) 93
onLeave: retValObjStr=NSMutableURLRequest: { URL: https://w.whatsapp.net/v2/reg_onboard_dpprop?cc=1&in=155550000&c=0 }
onLeave: retValObjStr=NSMutableURLRequest: { URL: https://w.whatsapp.net/v2/reg_onboard_dpprop?cc=1&in=155550000&c=0 }

0 printFunctionCollStackSymbol
1 CFNetwork
2 _ZN10__cxxabiv11::__asan::printFunctionCollStackSymbol
3 CFNetwork
4 libdispatch.dylib
5 libdispatch.dylib
6 libdispatch.dylib
7 libdispatch.dylib
8 libdispatch.dylib
9 libsystem_pthread.dylib
10 libsystem_pthread.dylib

objc[0]: 1 [0] curArgPtr=&x00
onLeave: retValObjStr=mutl
[1]Phone:[WhatsApp]
[1]Phone:[WhatsApp]
[1]Phone:[WhatsApp] ----- Called: +(WARegistrationURLBuilder preChatdAPropURLRequestWithPhoneNumber:obHash:) -----
objc[0]: 2 [0] curArgPtr=&x213900e0
curArgPtrObj: className: WARegistrationURLBuilder, value: &WARegistrationURLBuilder { x213900e0 { { 1 8784650468 } }
[1] curArgPtr=&x213900e0
curArgPtrObj: className: NSStagedPointerString, value: l2d6f
[1] curArgPtr=&x213900e0
curArgPtrObj: className: NSStagedPointerString, value: l2d6f
onLeave: retValObjStr=URL: https://w.whatsapp.net/v2/reg_onboard_dpprop?cc=1&in=8784650468&c=0&db_hash=l2d6f

[0] curArgPtr=&x213900e0
----- Called: +(WARegistrationURLBuilder preChatdAPropURLWithPhoneNumber:obHash:) -----
objc[0]: 2 [0] curArgPtr=&x213900e0
curArgPtrObj: className: WAPhoneNumber, value: &WAPhoneNumber { x213900e0 { { 1 8784650468 } }
curArgPtrObj: className: NSStagedPointerString, value: l2d6f
curArgPtrObj: className: NSStagedPointerString, value: l2d6f
onLeave: retValObjStr=URL: https://w.whatsapp.net/v2/reg_onboard_dpprop?cc=1&in=8784650468&c=0&db_hash=l2d6f

[0] curArgPtr=&x213900e0
----- Called: +(WARegistrationURLBuilder requestWithURL:obHash:) -----
objc[0]: 1 [0] curArgPtr=&x213900e0
prinFunctionCollStackSymbol
1 WhatsApp
2 WhatsApp
3 WhatsApp
4 WhatsApp
5 WhatsApp
6 WhatsApp
7 WhatsApp
8 WhatsApp
9 WhatsApp
10 WhatsApp
11 WhatsApp
12 WhatsApp
13 WhatsApp
14 UIKitCore
15 UIKitCore

0 SharedModules
1 WhatsApp
2 WhatsApp
3 WhatsApp
4 WhatsApp
5 WhatsApp
6 WhatsApp
7 WhatsApp
8 WhatsApp
9 WhatsApp
10 WhatsApp
11 SharedModules
12 SharedModules
13 SharedModules
14 UIKitCore
15 UIKitCore

objc[0]: 1 [0] curArgPtr=&x283c6100
----- Called: +(NSURLRequest initWithURL:] -----
objc[0]: 1
```

Called: +[NSURLRequest requestWithURL:]

```
----- printFunctionCallStack_symbol -----
0 SharedModules      mem:0x1072fd910  file:0xc29910  +[WACertPinning sharedPinned
WhatsAppCertificateWithoutDomainValidation]
1 WhatsApp          mem:0x104584cb4  file:0x102304cb4  +[WARegistrationURLBuilder p
reChatdABPropURLRequestWithPhoneNumber:abHash:]
2 WhatsApp          mem:0x10458befc  file:0x10230befc  -[WARegistrationManager requ
estPreChatdABPropsForPhoneNumber:userContext:completion:]
3 WhatsApp          mem:0x1045876a0  file:0x1023076a0  -[WARegistrationManager perf
ormSameDeviceCheckForSession:updateRegistrationTokenIfNecessary:fetchPreChatdABProps:wi
thCompletion:]
4 WhatsApp          mem:0x10455c220  file:0x1022dc220  -[WAPhoneInputViewController
performDeviceCheckForPhoneNumber:session:isFirstCheck:]
5 WhatsApp          mem:0x10455bff8  file:0x1022dbff8  -[WAPhoneInputViewController
performSameDeviceCheckForPhoneNumber:]
6 WhatsApp          mem:0x10455f658  file:0x1022df658  maybe C function?
7 WhatsApp          mem:0x10453e038  file:0x1022be038  +[WATwoFactorWipeToken token
FromResponseDictionary:]
8 WhatsApp          mem:0x10455e834  file:0x1022de834  -[WAPhoneInputViewController
doneWithVideo:]
9 WhatsApp          mem:0x10455f758  file:0x1022df758  maybe C function?
10 SharedModules     mem:0x106a775b0  file:0x3a35b0   -[WDSButtonConfiguration set
```

```
DidTap:]  
11 SharedModules      mem:0x106b451e8 file:0x4711e8 +[WDSViewCallback callback:]  
12 SharedModules      mem:0x106aacb84 file:0x3d8b84 -[_TtCC15UILibraryShared6But  
ton12NativeButton intrinsicContentSize]  
13 SharedModules      mem:0x106aacbc0 file:0x3d8bc0 -[_TtCC15UILibraryShared6But  
ton12NativeButton didTap]  
14 UIKitCore          mem:0x1c14b99ac file:0x1845199ac -[UIApplication sendAction:t  
o:from:forEvent:]  
15 UIKitCore          mem:0x1c0eefbbc file:0x183f4ffbc -[UIControl sendAction:to:fo  
rEvent:]  
-----  
argCount: 1  
----- [0] curArgPtr=0x283c61e00 -----  
curArgPtrObj: className= NSURL, value= https://v.whatsapp.net/v2/reg_onboard_abprop?cc=1  
&in=8784650468&rc=0&ab_hash=1zduBG
```

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# Java通用

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## Java的类的处理

### findClass

```
// find loaded classes that match a pattern (async)
// for 抖音: 会崩溃 Process terminated
function findClass(pattern)
{
    console.log("Finding all classes that match pattern: " + pattern + "\n");

    Java.enumerateLoadedClasses({
        onMatch: function(aClass) {
            if (aClass.match(pattern)){
                console.log(aClass);
            }
        },
        onComplete: function() {}
    });
}
```

### printAllClasses

```
// emulate print all Java Classes
// for 抖音: 会崩溃 Process terminated
function printAllClasses(){
    // findClass("*")
    Java.enumerateLoadedClasses({
        onMatch: function(className) {
            console.log(className);
        },
        onComplete: function() {}
    });
}
```

## Java类的函数和属性

### describeJavaClass

```
function describeJavaClass(className) {
  var jClass = Java.use(className);
  console.log(JSON.stringify({
    _name: className,
    _methods: Object.getOwnPropertyNames(jClass.__proto__).filter(m => {
      // _methods: Object.getOwnPropertyDescriptor(jClass.__proto__).filter(m => {
      // _methods: Object.getOwnPropertySymbols(jClass.__proto__).filter(m => {
        return m.startsWith('$') // filter out Frida related special properties
          || m == 'class' || m == 'constructor' // optional
      }),
      _fields: jClass.class.getFields().map(f => {
        return f.toString()
      })
    }, null, 2))
}
```

### enumMethods

```
// enumerate all methods declared in a Java class
function enumMethods(targetClass)
{
  var hook = Java.use(targetClass);
  var ownMethods = hook.class.getDeclaredMethods();
  console.log("use getDeclaredMethods")

  // var ownMethods = hook.class.getMethods();
  // console.log("use getMethods")

  hook.$dispose;
  return ownMethods;
}
```

调用：

```
// enumerate all methods in a class
var allMethods = enumMethods(javaClassName)
allMethods.forEach(function(singleMethod) {
  console.log(singleMethod)
})
```

### enumProperties

```
// enumerate all property=field declared in a Java class
```

```

function enumProperties(targetClass)
{
    var hook = Java.use(targetClass);
    // var ownMethods = hook.class.getFields();
    // console.log("use getFields")

    var ownFields = hook.class.getDeclaredFields();
    console.log("use getDeclaredFields")

    hook.$dispose;
    return ownFields;
}

```

调用：

```

var allProperties = enumProperties(javaClassName)
allProperties.forEach(function(singleProperty) {
    console.log(singleProperty)
})

```

## printClassAllMethodsFields

```

// print single java class all Functions=Methods and Fields=Properties
function printClassAllMethodsFields(javaClassName){
    console.log("======" + "Class: " + javaClassName + " ======")

    console.log("----" + "All Properties" + "----")
    var allProperties = enumProperties(javaClassName)
    allProperties.forEach(function(singleProperty) {
        console.log(singleProperty)
    })

    console.log("----" + "All Methods" + "----")
    // enumerate all methods in a class
    var allMethods = enumMethods(javaClassName)
    allMethods.forEach(function(singleMethod) {
        console.log(singleMethod)
    })
    console.log("")
}

```

## 举例

调用1：

```

var ContextImplClassName = "android.app.ContextImpl"
printClassAllMethodsFields(ContextImplClassName)

```

调用2：

```
// var C660660PrrClassName = "X.C660660Prr"
var C660660PrrClassName = "X.0Prr"
printClassAllMethodsFields(C660660PrrClassName)
```

输出：

```
===== Class: X.0Prr =====
-----All Properties-----
use getDeclaredFields
public static java.lang.String X.0Prr.LIZ
public static com.ss.android.common.AppContext X.0Prr.LIZIZ
public static java.lang.String X.0Prr.LIZJ
public static java.lang.String X.0Prr.LIZLLL
public static int X.0Prr.LJ
public static int X.0Prr.LJFF
public static java.lang.String X.0Prr.LJI
public static java.lang.String X.0Prr.LJII
public static java.util.concurrent.ConcurrentHashMap X.0Prr.LJIIIZZ
public static boolean X.0Prr.LJIIIZ
public static volatile org.json.JSONObject X.0Prr.LJIIJ
public static java.lang.String X.0Prr.LJIIJJI
public static java.lang.String X.0Prr.LJIIIL
public static java.lang.String X.0Prr.LJIIILIL
public static java.lang.String X.0Prr.LJIIILJJIL
public static final java.lang.Object X.0Prr.LJIIILL
public static X.0Pro X.0Prr.LJIIILIL
public static X.0PsA X.0Prr.LJIIIZIL
public static boolean X.0Prr.LJIJ
public static java.lang.String X.0Prr.LJIIJI
public static volatile com.ss.android.deviceregister.DeviceCategory X.0Prr.LJIIJJ
public static java.lang.String X.0Prr.LJIIJLI
public static volatile boolean X.0Prr.LJIL
public static java.util.concurrent.ConcurrentHashMap X.0Prr.LJJ
-----All Methods-----
use getDeclaredMethods
public static android.content.pm.PackageInfo X.0Prr.LIZ(android.content.pm.PackageManager,java.lang.String,int)
public static java.lang.String X.0Prr.LIZ()
public static java.lang.String X.0Prr.LIZ(android.content.Context)
public static void X.0Prr.LIZ(int)
public static void X.0Prr.LIZ(X.0Pro)
public static void X.0Prr.LIZ(X.0PSA)
public static void X.0Prr.LIZ(android.content.Context,java.lang.String)
public static void X.0Prr.LIZ(com.ss.android.common.AppContext)
public static void X.0Prr.LIZ(com.ss.android.deviceregister.DeviceCategory)
public static void X.0Prr.LIZ(java.lang.String)
public static void X.0Prr.LIZ(java.lang.String,java.lang.Object)
public static void X.0Prr.LIZ(java.lang.String,java.lang.String)
public static void X.0Prr.LIZ(java.lang.Throwable)
public static void X.0Prr.LIZ(org.json.JSONObject)
public static void X.0Prr.LIZ(org.json.JSONObject,org.json.JSONObject)
public static void X.0Prr.LIZ(boolean)
public static boolean X.0Prr.LIZ(android.content.Context,org.json.JSONObject,boolean)
public static android.content.pm.ApplicationInfo X.0Prr.LIZIZ(android.content.pm.Package
```

```
eManager,java.lang.String,int)
public static java.lang.String X.0Prr.LIZIZ()
public static java.lang.String X.0Prr.LIZIZ(android.content.Context)
public static void X.0Prr.LIZIZ(android.content.Context,java.lang.String)
public static void X.0Prr.LIZIZ(java.lang.String)
public static java.lang.String X.0Prr.LIZJ()
public static java.lang.String X.0Prr.LIZJ(android.content.Context)
public static void X.0Prr.LIZJ(java.lang.String)
public static int X.0Prr.LIZLLL()
public static void X.0Prr.LIZLLL(java.lang.String)
public static int X.0Prr.LJ()
public static void X.0Prr.LJ(java.lang.String)
public static java.lang.String X.0Prr.LJFF()
public static void X.0Prr.LJFF(java.lang.String)
public static java.lang.String X.0Prr.LJI()
public static boolean X.0Prr.LJII()
public static void X.0Prr.LJIIIIZZ()
```

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## Java函数调用堆栈

### genStackStr

```
// generate current stack trace string
function genStackStr(ThrowableCls) {
    let newThrowable = ThrowableCls.$new()
    // console.log("genStackStr: newThrowable=" + newThrowable)
    var stackElements = newThrowable.getStackTrace()
    // console.log("genStackStr: stackElements=" + stackElements)
    var stackStr = "Stack: " + stackElements[0] //method//stackElements[0].getMethodName()

    for (var i = 1; i < stackElements.length; i++) {
        stackStr += "\n      at " + stackElements[i]
    }
    // stackStr = "\n\n" + stackStr
    stackStr = stackStr + "\n"
    // console.log("genStackStr: stackStr=" + stackStr)

    return stackStr
}
```



调用：

```
var stackStr = genStackStr(ThrowableCls)
console.log(stackStr)
```

### PrintStack

```
// 打印当前调用堆栈信息 print call stack
function PrintStack(ThrowableCls) {
    var stackStr = genStackStr(ThrowableCls)
    console.log(stackStr)

    // let newThrowable = ThrowableCls.$new()
    // let curLog = Java.use("android.util.Log")
    // let stackStr = curLog.getStackTraceString(newThrowable)
    // console.log("stackStr=" + stackStr)
}
```

调用：

```
var ThrowableCls = Java.use("java.lang.Throwable")
console.log("ThrowableCls=" + ThrowableCls)

PrintStack(ThrowableCls)
```

## genFunctionCallStr

```
// generate Function call string
function genFunctionCallStr(funcName, funcParaDict){
    var logStr = `${funcName}:`;
    // var logStr = funcName + ":";

    var isFirst = true

    for(var curParaName in funcParaDict){
        let curParaValue = funcParaDict[curParaName];
        var prevStr = "";

        if (isFirst){
            prevStr = " ";
            isFirst = false;
        } else {
            prevStr = ", ";
        }

        logStr = `${logStr}${prevStr}${curParaName}=${curParaValue}`;
        // logStr = logStr + prevStr + curParaName + "=" + curParaValue;
    }

    return logStr
}
```

调用：

```
var functionCallStr = genFunctionCallStr(funcName, funcParaDict)
```

## printFunctionCallAndStack

```
// print Function call and stack trace string
function printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls, filterList=undefined){
    // console.log("filterList=" + filterList)

    var needPrint = true

    var functionCallStr = genFunctionCallStr(funcName, funcParaDict)

    var stackStr = genStackStr(ThrowableCls)

    if (filterList != undefined) {
        needPrint = false

        for (const curFilter of filterList) {
            // console.log("curFilter=" + curFilter)
            if (stackStr.includes(curFilter)) {
                needPrint = true
                // console.log("needPrint=" + needPrint)
                break
            }
        }
    }
}
```

```

        }
    }

    if (needPrint) {
        var functionCallAndStackStr = `${functionCallStr}\n${stackStr}`
        // var functionCallAndStackStr = functionCallStr + "\n" + stackstr

        // return functionCallAndStackStr
        console.log(functionCallAndStackStr)
    }
}

```

调用：

- 场景1：不传递filter，没过滤条件，直接全都打印

```

// ----- android.app.ContextImpl
var ContextImplClassName = "android.app.ContextImpl"
var ContextImplCls = Java.use(ContextImplClassName)
console.log("ContextImplCls=" + ContextImplCls)
// printClassAllMethodsFields(ContextImplClassName)

// public boolean bindServiceAsUser(Intent service, ServiceConnection conn, int flags, UserHandle user)
var bindServiceAsUserFunc4 = ContextImplCls.bindServiceAsUser.overload('android.content.Intent', 'android.content.ServiceConnection', 'int', 'android.os.UserHandle')
if (bindServiceAsUserFunc4) {
    bindServiceAsUserFunc4.implementation = function (service, conn, flags, user) {
        // console.log("ContextImpl.bindServiceAsUser 4: service=" + service + ", conn=" + conn + ", flags=" + flags + ", user=" + user)
        // PrintStack(ThrowableCls)
        var funcName = "ContextImpl.bindServiceAsUser 4"
        var funcParaDict = {
            "service": service,
            "conn": conn,
            "flags": flags,
            "user": user,
        }
        printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)

        return this.bindServiceAsUser(service, conn, flags, user)
    }
}

```

- 场景2：传递filter，只有堆栈中出现filter的字符串，才打印

```

var funcName = "GlobalProxyLancet.com_ss_android_ugc_aweme_lancet_MemoryOptLancet_toString"
var funcParaDict = {
    "JSONObject": JSONObject
}
// printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls)
// printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls, filterList=["X.OPrv.LIZ"])

```

```
printFunctionCallAndStack(funcName, funcParaDict, ThrowableCls, ["X.OPrU.LIZ"])
```

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# Android类

## ProcessRecord

### printProcessRecord

```
function printProcessRecord(curProcessRecord){
    console.log("printProcessRecord: curProcessRecord=" + curProcessRecord)
    console.log("  mService=" + curProcessRecord.mService.value)
    console.log("  mProcLock=" + curProcessRecord.mProcLock.value)
    console.log("  info=" + curProcessRecord.info.value)
    console.log("  processInfo=" + curProcessRecord.processInfo.value)
    console.log("  isolated=" + curProcessRecord.isolated.value)
    console.log("  isSdkSandbox=" + curProcessRecord.isSdkSandbox.value)
    console.log("  appZygote=" + curProcessRecord.appZygote.value)
    console.log("  uid=" + curProcessRecord.uid.value)
    console.log("  userId=" + curProcessRecord.userId.value)
    console.log("  processName=" + curProcessRecord.processName.value)
    console.log("  sdkSandboxClientAppPackage=" + curProcessRecord.sdkSandboxClientAppPac
kage.value)
    console.log("  sdkSandboxClientAppVolumeUuid=" + curProcessRecord.sdkSandboxClientApp
VolumeUuid.value)
}
```

调用：

```
var handleProcessStartedLockedFunc = ProcessListCls.handleProcessStartedLocked.over
load('com.android.server.am.ProcessRecord', 'int', 'boolean', 'long', 'boolean')
if (handleProcessStartedLockedFunc) {
    handleProcessStartedLockedFunc.implementation = function (app, pid, usingWrapper,
expectedStartSeq, procAttached) {
        ...
        printProcessRecord(app)
    }
}
```

## Parcel

### getParcelInfo

```
function getParcelInfo(curParcel){
    var parcelDataSize = curParcel.dataSize()
    var parcelDataCapacity = curParcel.dataCapacity()
    // var parcelDataPosition = curParcel.dataPosition()
    // var parcelInfoStr = "dataSize=" + parcelDataSize + ", dataCapacity=" + parcelDataC
apacity + ", dataPositon = " + parcelDataPosition
    var parcelInfoStr = "Parcel: " + curParcel + ", dataSize=" + parcelDataSize + ", data
Capacity=" + parcelDataCapacity
    return parcelInfoStr
}
```

调用：

```
var dataParcelInfoStr = getParcelInfo(dataParcel)
```

## tryReadParcelString

```
// try to read Parcel string
function tryReadParcelString(curParcel){
    var parcelDataSize = curParcel.dataSize()
    // console.log("curParcel=" + curParcel + ": parcelDataSize=" + parcelDataSize)
    let StepSize = 4

    var isFoundStr = false
    var strDictList = []

    var curStr = null
    var curStepSize = 0
    // var foundStr = null
    // var strPos = -1
    var foundStrNum = 0
    for (var curPos = 0; curPos < parcelDataSize; curPos++) {
        curStepSize = StepSize
        curParcel.setDataPosition(curPos)
        curStr = curParcel.readString()
        if (curStr){
            if (curStr === "") {
                // empty string, continue try read other string
            } else {
                isFoundStr = true
                foundStrNum += 1

                // foundStr = curStr
                // strPos = curPos
                // console.log(" [" + curPos + "] string=" + curStr)
                // console.log(" [" + strPos + "] string=" + foundStr)
                var curStrDict = {"str": curStr, "pos": curPos}
                strDictList.push(curStrDict)
                var newPosition = curParcel.dataPosition()
                var posDiff = newPosition - curPos
                curStepSize = posDiff
                // console.log(" [" + foundStrNum + "] strDict=" + toJsonStr(curStrDict, true)
                // + ", pos: " + curPos + " -> " + newPosition + ", curStepSize=" + curStepSize)
                // break
            }
        }
        curPos += curStepSize
    }

    // setDataPosition and readString maybe CHANGED position, so need reset position
    curParcel.setDataPosition(0)

    // if(isFoundStr){
```

```

//  // var logStr = toJsonStr(strDictList, true, 1)
//  var logStr = toJsonStr(strDictList, true, 0)
//  console.log(" logStr=" + logStr)
// }

return {
  "isFoundStr": isFoundStr,
  "strDictList": strDictList
}
}

```

调用：

```

var readResultDict = tryReadParcelString(dataParcel)
console.log("parcelStr=" + parcelStr + ", strPos=" + strPos)
var isFoundStr = readResultDict.isFoundStr
var strDictList = readResultDict.strDictList
if (isFoundStr) {
  // var foundStrLog = ""
  var strDictListStr = toJsonStr(strDictList, true, 0)
}

```

## Intent

### printIntentInfo

```

// print Intent info
function printIntentInfo(curIntent){
  console.log("printIntentInfo: curIntent=" + curIntent)
  var curComponent = curIntent.getComponent()
  console.log(" Intent component=" + curComponent)
  if (curComponent) {
    var pkgName = curComponent.getPackageName()
    var clsName = curComponent.getClassName()
    var shortClassName = curComponent.getShortClassName()
    var flattenedShortStr = curComponent.flattenToShortString()
    var flattenedStr = curComponent.flattenToString()
    console.log(" Intent Component info: pkgName=" + pkgName + ", clsName=" + clsName
      + ", shortClassName=" + shortClassName + ", flattenedStr=" + flattenedStr + ", flattenedS
      hortStr=" + flattenedShortStr)
  }
}

```

调用：

```
printIntentInfo(service)
```

## TransactCode

### hookPrintTransactCodeValue

```

function hookPrintTransactCodeValue(){
    // ----- android.app.IActivityManager$Stub
    var IActivityManagerStubClassName = "android.app.IActivityManager$Stub"
    var IActivityManagerStubCls = Java.use(IActivityManagerStubClassName)
    console.log("IActivityManagerStubCls=" + IActivityManagerStubCls)
    // printClassAllMethodsFields(IActivityManagerStubClassName)

    // console.log("IActivityManager$Stub: code_startService=" + code_startService + ", code_broadcastIntent=" + code_broadcastIntent + ", code_startInstrumentation=" + code_startInstrumentation + ", code_unbindService=" + code_unbindService)
    var TRANSACTION_startService = IActivityManagerStubCls. TRANSACTION_startService.value
    console.log("TRANSACTION_startService=" + TRANSACTION_startService)
    var TRANSACTION_broadcastIntent = IActivityManagerStubCls. TRANSACTION_broadcastIntent.value
    console.log("TRANSACTION_broadcastIntent=" + TRANSACTION_broadcastIntent)
    var TRANSACTION_unbindService = IActivityManagerStubCls. TRANSACTION_unbindService.value
    console.log("TRANSACTION_unbindService=" + TRANSACTION_unbindService)
    var TRANSACTION_publishService = IActivityManagerStubCls. TRANSACTION_publishService.value
    console.log("TRANSACTION_publishService=" + TRANSACTION_publishService)
    var TRANSACTION_startInstrumentation = IActivityManagerStubCls. TRANSACTION_startInstrumentation.value
    console.log("TRANSACTION_startInstrumentation=" + TRANSACTION_startInstrumentation)
    var TRANSACTION_startActivity = IActivityManagerStubCls. TRANSACTION_startActivity.value
    console.log("TRANSACTION_startActivity=" + TRANSACTION_startActivity)
    // var TRANSACTION_startActivityAndWait = IActivityManagerStubCls. TRANSACTION_startActivityAndWait.value
    // console.log("TRANSACTION_startActivityAndWait=" + TRANSACTION_startActivityAndWait)
    // var TRANSACTION_startActivityAsCaller = IActivityManagerStubCls. TRANSACTION_startActivityAsCaller.value
    // console.log("TRANSACTION_startActivityAsCaller=" + TRANSACTION_startActivityAsCaller)
    var TRANSACTION_startActivityAsUser = IActivityManagerStubCls. TRANSACTION_startActivityAsUser.value
    console.log("TRANSACTION_startActivityAsUser=" + TRANSACTION_startActivityAsUser)
    var TRANSACTION_startActivityFromRecents = IActivityManagerStubCls. TRANSACTION_startActivityFromRecents.value
    console.log("TRANSACTION_startActivityFromRecents=" + TRANSACTION_startActivityFromRecents)
    // var TRANSACTION_startActivityIntentSender = IActivityManagerStubCls. TRANSACTION_startActivityIntentSender.value
    // console.log("TRANSACTION_startActivityIntentSender=" + TRANSACTION_startActivityIntentSender)
    // var TRANSACTION_startActivityWithConfig = IActivityManagerStubCls. TRANSACTION_startActivityWithConfig.value
    // console.log("TRANSACTION_startActivityWithConfig=" + TRANSACTION_startActivityWithConfig)

    var TRANSACTION_registerUidObserver = IActivityManagerStubCls. TRANSACTION_registerUidObserver.value
    console.log("TRANSACTION_registerUidObserver=" + TRANSACTION_registerUidObserver)
}

```

```

    var TRANSACTION_unhandledBack = IActivityManagerStubCls.TRANSACTION_unhandledBack.value
    console.log("TRANSACTION_unhandledBack=" + TRANSACTION_unhandledBack)
    var TRANSACTION_registerReceiver = IActivityManagerStubCls.TRANSACTION_registerReceiver.value
    console.log("TRANSACTION_registerReceiver=" + TRANSACTION_registerReceiver)
    var TRANSACTION_attachApplication = IActivityManagerStubCls.TRANSACTION_attachApplication.value
    console.log("TRANSACTION_attachApplication=" + TRANSACTION_attachApplication)
    // var TRANSACTION_activityIdle = IActivityManagerStubCls.TRANSACTION_activityIdle.value
    // console.log("TRANSACTION_activityIdle=" + TRANSACTION_activityIdle)
    var TRANSACTION_stopService = IActivityManagerStubCls.TRANSACTION_stopService.value
    console.log("TRANSACTION_stopService=" + TRANSACTION_stopService)
    var TRANSACTION_bindService = IActivityManagerStubCls.TRANSACTION_bindService.value
    console.log("TRANSACTION_bindService=" + TRANSACTION_bindService)
    var TRANSACTION_noteWakeupAlarm = IActivityManagerStubCls.TRANSACTION_noteWakeupAlarm.value
    console.log("TRANSACTION_noteWakeupAlarm=" + TRANSACTION_noteWakeupAlarm)
    var TRANSACTION_openContentUri = IActivityManagerStubCls.TRANSACTION_openContentUri.value
    console.log("TRANSACTION_openContentUri=" + TRANSACTION_openContentUri)
    var TRANSACTION_finishReceiver = IActivityManagerStubCls.TRANSACTION_finishReceiver.value
    console.log("TRANSACTION_finishReceiver=" + TRANSACTION_finishReceiver)
    // var TRANSACTION_startNextMatchingActivity = IActivityManagerStubCls.TRANSACTION_startNextMatchingActivity.value
    // console.log("TRANSACTION_startNextMatchingActivity=" + TRANSACTION_startNextMatchingActivity)

    var TRANSACTION_finishActivity = IActivityManagerStubCls.TRANSACTION_finishActivity.value
    console.log("TRANSACTION_finishActivity=" + TRANSACTION_finishActivity)
}

```

调用：

```
hookPrintTransactCodeValue()
```

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# C

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## native C

### hookNativeFunc

```

function hookNativeFunc(){
    // /Users/crifan/dev/dev_src/androidReverse/Android/android.googlesource.com/base-ref
    // s_heads_main/core/jni/android_util_Binder.cpp
    // status_t onTransact( uint32_t code, const Parcel& data, Parcel* reply, uint32_t flags = 0) override {
        // var foundOnTransact = Module.findExportByName(null, "onTransact")

        // let transactModuleName = "libBinder.so"
        // let transactModuleName = "libbinder.so"
        let transactModuleName = "libbinder_ndk.so"

        var foundOnTransact = Module.findExportByName(transactModuleName, "onTransact")

        console.log("foundOnTransact=" + foundOnTransact)
        if (foundOnTransact) {
            Interceptor.attach(foundOnTransact, {
                onEnter: function(args) {
                    var code = args[0]
                    var data = args[1]
                    var reply = args[2]
                    var flags = args[3]
                    console.log("onTransact: code=" + code + ", data=" + data + ", reply=" + reply +
                    ", flags=" + flags)
                },
                onLeave: function(retval) {
                    console.log("onTransact: retval=" + retval)
                }
            })
        }

        // var foundTransact = Module.findExportByName(null, "transact")
        var foundTransact = Module.findExportByName(transactModuleName, "transact")
        console.log("foundTransact=" + foundTransact)
    }
}

```

调用：

```

function hookForceStop() {
    if(!Java.available){
        console.error("Java is not available")
        return
    }
    console.log("Java is available")
    console.log("Java.androidVersion=" + Java.androidVersion)
    Java.perform(function () {
        ...
    })
}

```

```
    hookNativeFunc()  
    ...  
}  
  
setImmediate(hookForceStop)
```

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## 附录

下面列出相关参考资料。

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## 参考资料

- [4ch12dy/FridaLib: iOS/android frida library for reversing \(github.com\)](#)
- 【已解决】Frida中js判断字符串是否在字典dict的key键中
- 【已解决】Frida中js从数组中截取获取部分子数组元素
- 【已解决】Frida中js打印日志log优化：自动生成中间字符串加上左右对称的单行log日志
- 【已解决】Frida去hook函数时打印iOS函数调用堆栈且带符号解析后的函数名
- 【已解决】frida调试iOS函数打印函数堆栈且带符号解析后的函数：加缓存结果以优化速度提高性能
- 【已解决】Frida打印iOS函数调用堆栈：优化同一函数只输出一次
- 【已解决】iOS逆向WhatsApp：Frida的js的函数堆栈打印优化：给个别特定函数加到排除列表
- 【已解决】iOS逆向WhatsApp：Frida的js的函数堆栈打印优化：支持特定函数的特定参数值时打印
- 【已解决】Frida无法hook到类ActivityManagerService：hook系统进程system\_server
- 【未解决】Frida去hook抖音：打印所有的Java的类名
- 【已解决】Frida的js中判断字符串是否包含子字符串
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