1 Ann Marie Mortimer (State Bar No. 169077) amortimer@HuntonAK.com 2 Jason J. Kim (State Bar No. 221476) 3 kimj@HuntonAK.com Jeff R. R. Nelson (State Bar No. 301546) 4 inelson@HuntonAK.com 5 **HUNTON ANDREWS KURTH LLP** 550 South Hope Street, Suite 2000 6 Los Angeles, California 90071-2627 Telephone: (213) 532-2000 7 Facsimile: (213) 532-2020 8 9 Attorneys for Plaintiff FACEBOOK, INC. 10 11 550 South Hope Street, Suite 2000 Los Angeles, California 90071-2627 UNITED STATES DISTRICT COURT Hunton Andrews Kurth LLP 12 NORTHERN DISTRICT OF CALIFORNIA 13 SAN FRANCISCO DIVISION 14 FACEBOOK, INC., a Delaware CASE NO.: 3:20-cv-01461 15 corporation, **COMPLAINT; DEMAND FOR** 16 Plaintiff, JURY TRIAL 17 v. 18 19 ONEAUDIENCE LLC, 20 Defendant. 21 22 23 24 25 26 27 28 3:20-cv-01461

COMPLAINT; DEMAND FOR JURY TRIAL

INTRODUCTION

- 1. Beginning no later than September 2019, Defendant OneAudience LLC ("OneAudience") controlled a software development kit ("SDK") designed to improperly obtain user data from Facebook, Google, and Twitter ("the malicious SDK"). OneAudience promoted the malicious SDK to third-party application ("app") developers, who in exchange for payment from OneAudience bundled the malicious SDK with other software components within their apps. These apps were distributed online to app users on various app stores, including the Google Play Store, and included shopping, gaming, and utility-type apps. After a user installed one of these apps on their device, the malicious SDK enabled OneAudience to collect information about the user from their device and their Facebook, Google, or Twitter accounts, in instances where the user logged into the app using those accounts. With respect to Facebook, OneAudience used the malicious SDK without authorization from Facebook to access and obtain a user's name, email address, locale (*i.e.* the country that the user logged in from), time zone, Facebook ID, and, in limited instances, gender.
- 2. In November 2019, Facebook took technical and legal enforcement measures against OneAudience, including disabling accounts, sending a cease and desist letter, notifying users, and requesting an audit, pursuant to Facebook Platform Policy 7.9. OneAudience has refused to fully cooperate with Facebook's audit request, therefore Facebook brings this action to protect its users and hold OneAudience accountable for violations of Facebook's Terms of Service and Policies, as well as federal and California law.

PARTIES

- 3. Facebook is a Delaware corporation with its principal place of business in Menlo Park, San Mateo County, California.
- 4. Defendant OneAudience is a New Jersey company that purports to provide marketing and data analytics solutions. Ex. 1 & 2. OneAudience collected user data in order to provide services to advertisers and other marketing companies. Ex. 2.

3:20-cv-01461

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5. OneAudience has an office located at 222 Bridge Plaza South, Fort Lee, New Jersey. Ex. 1. Between at least 2017 to 2019, one or more OneAudience employees created and administered at least one Facebook Page and app on behalf of OneAudience.

JURISDICTION AND VENUE

- The Court has federal question jurisdiction over the federal causes of 6. action alleged in this Complaint pursuant to 28 U.S.C. § 1331.
- 7. The Court has supplemental jurisdiction under 28 U.S.C. § 1367 over the state law causes of action alleged in this Complaint because they arise out of the same nucleus of operative fact as Facebook's federal claims.
- In addition, the Court has jurisdiction under 28 U.S.C. § 1332 over all causes of action alleged in this Complaint because complete diversity exists and the amount in controversy exceeds \$75,000.
- 9. The Court has personal jurisdiction over OneAudience because it knowingly directed and targeted its scheme at Facebook, which has its principal place of business in California. Defendants also used Facebook's developer and advertising platforms, and transacted business using Facebook, and otherwise engaged in commerce in California.
- 10. The Court also has personal jurisdiction over OneAudience because OneAudience used the Facebook Platform and thereby agreed to Facebook's Terms of Service ("TOS"). By agreeing to the TOS, OneAudience, in relevant part, agreed to submit to the personal jurisdiction of this Court for litigating claims, causes of action, or disputes with Facebook.
- Venue is proper in this District under 28 U.S.C. § 1391(b) because a substantial part of the events giving rise to the claims asserted in this lawsuit occurred here.
- 12. Pursuant to Civil L.R. 3-2(c), this case may be assigned to either the San Francisco or Oakland division because Facebook is located in San Mateo County.

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FACTUAL ALLEGATIONS

A. Background

- 13. Facebook is a social networking website and mobile application that enables its users to create their own personal profiles and connect with each other on mobile devices and personal computers. As of October 2019, Facebook daily active users averaged 1.62 billion and monthly active users averaged 2.44 billion.
- 14. Facebook also operates a developer platform referred to as the "Facebook Platform." This platform enables app developers ("Developers") to run apps that interact with Facebook and Facebook users.
- 15. Facebook permits Developers to access and interact with the Facebook Platform, subject to and restricted by Facebook's TOS and Platform Policies.¹

B. Facebook's TOS

- All Facebook users, including Developers and Page administrators, agree 16. to comply with Facebook's TOS when they create a Facebook account. Everyone who uses Facebook Facebook's TOS (available must agree to at https://www.facebook.com/terms.php), and other rules that govern different types of access to, and use of, Facebook. These other rules include Facebook's Community Standards (available at https://www.facebook.com/communitystandards/), Platform Policies (available at https://developers.facebook.com/policy/), and Facebook's Commercial Terms (available at https://www.facebook.com/legal/commercial_terms).
- 17. Section 2.3 of the TOS prohibits accessing or collecting data using automated means (without Facebook's prior permission) or attempting to access data without permission.

Over the years, the "Platform Policies" have been called the "Developer Principles and Policies," the "Platform Guidelines," or the "Developer Terms of Service." For simplicity, this Complaint uses the term "Platform Policies" to refer to these policies.

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Section 3.2 of the TOS prohibits using Facebook to do anything that 18. "violates these Terms, and other terms and policies," and that "is unlawful, misleading, discriminatory or fraudulent."

C. Platform Policies

- 19. All Developers operating on the Facebook Platform agree to the Platform Policies.
- 20. The Platform Policies impose obligations and restrictions on Developers, including that Developers must obtain consent from the users of their apps before they can access their users' data on Facebook. The Platform Policies largely restrict Developers from using Facebook data outside of the environment of the app, for any purpose other than enhancing the app users' experience on the app.
- Through the Policies, Developers agree that Facebook can audit their apps 21. to ensure compliance with the Platform Policies and other Facebook policies. Further, Developers agree to provide proof of such compliance if Facebook so requests. Developers agree to the Platform Policies at the time they first sign up to the Platform, and continue to agree to the Platform Policies as a condition of using the Facebook Platform. Over time, these Platform Policies have imposed substantially the same restrictions on the use and collection of Facebook data.
 - 22. The relevant Platform Policies include:
 - "Don't sell, license, or purchase any data obtained from us or our services." Facebook Section 2.9.
 - "Don't directly or indirectly transfer any data that you receive from us (including anonymous, aggregate, or derived data) to any ad network, data broker or other advertising or monetization-related service." Section 2.10.
 - "[Facebook] or an independent auditor acting on our behalf may audit your app, systems, and records to ensure your use of Platform and data you receive from us is safe and complies with our Terms, and that you've complied with our requests and requests from people who use Facebook to delete user data

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obtained through our Platform. If requested, you must provide proof that your app complies with our terms." Section 7.9.

• "Comply with all applicable laws and regulations." Section 5.8.

D. OneAudience Agreed to Facebook's TOS and Platform Policies.

- 23. OneAudience created two public Facebook Pages—a profile on Facebook used to promote a business or other commercial, political, or charitable organization or endeavor—on or about March 31, 2016 and January 5, 2017. One Audience also created a Facebook business account on or about July 13, 2016. At all relevant times, OneAudience was a Facebook user that agreed to and was bound by the TOS.
- Between approximately 2017 and 2019, OneAudience's employees and 24. agents created and operated at least two apps on behalf of OneAudience on the Facebook Platform. OneAudience's employees and agents accepted and agreed to be bound by the Platform Policies on behalf of OneAudience. These apps did not contain the malicious SDK.

E. The "Facebook Login" Feature.

- "Facebook Login" is a feature available to Facebook users, which lets them 25. log into third-party mobile and desktop apps using their Facebook login credentials. Facebook Login allows users to customize and optimize their online experiences and to create accounts with third-party apps without having to set multiple usernames and passwords. In turn, these third-party web apps can use the Facebook Login feature for user authentication and to enhance a user's experience on the app.
- 26. Third-party app developers create independent web-based mobile and desktop apps. In order to use the Facebook Login feature on their apps, third-party apps developers must have a Facebook account and register a developer account with Facebook. In doing so, they must agree to Facebook's TOS and Platform Policies.
- 27. The Facebook Login feature protects Facebook users' credentials and information in several ways. First, when users provide their credentials for the purpose of logging into the third-party app using the Facebook Login feature, those credentials

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are communicated only to Facebook's servers, not to the servers of the app. When a user logs into an app using Facebook Login, the user is assigned a unique identifying digital key or token for the specific app, which authenticates the user to Facebook computers (the digital key). The digital key allowed the user to access the app without having to enter his or her credentials on every occasion and, in turn, allowed the app to access the user's data on Facebook with the user's consent.

28. Second, before any user's public Facebook profile information is sent to the app for verification purposes, the user must first provide consent through a custom dialogue box that asks whether the user wants to share the information that the app has requested.

F. OneAudience Used the Malicious SDK to Obtain Facebook User Data Without Facebook's Authorization.

- 29. OneAudience used the malicious SDK in order to access and obtain user data from Facebook, without Facebook's authorization.
- 30. The malicious SDK was programmed to collect the digital key that Facebook assigned exclusively to a third-party app for a single user. OneAudience used the misappropriated digital key to make automated requests for data from Facebook. OneAudience misrepresented the source of those requests as the third-party app authorized to use the digital key. In fact, it was the malicious SDK that made the requests on behalf of OneAudience.
- 31. OneAudience caused the malicious SDK to send requests for the users' name, locale (i.e., the country that the user logged in from), time zone, email address, Facebook ID, and gender. Ex. 3. Facebook's technical restrictions prevented OneAudience from accessing any user data that the user had not authorized the app to obtain. For example, if a user had not authorized the app to access gender information, Facebook computers denied the malicious SDK's request for the app user's gender.
- 32. OneAudience caused the malicious SDK to send unauthorized requests (or API calls) for user data to Facebook computers in approximately 24-hour intervals. In

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instances where the malicious SDK was able to fraudulently obtain Facebook data, it was programmed to send that data to a remote server controlled by OneAudience using the domain api.oneaudience.com/api/devices. Ex. 4 & 5.

- OneAudience also caused the malicious SDK to collect data from the user's device. The collection of that information was unrelated to Facebook. OneAudience collected call logs, cell tower and other location information, contacts, browser information, email, and information about apps installed on the device. Ex. 6 - 11.
- 34. On information and belief, OneAudience compiled the data they harvested from the user's device and Facebook (and other services) in order to provide marketing services to their customers.
- On its website, OneAudience falsely represented that OneAudience and its 35. parent company, Bridge Company, were partners with Facebook. OneAudience's website also falsely represented that it was "committed to the transparency of [their] mobile driven audiences and relationships" and sourced "data responsibly." In fact, OneAudience did not obtain data through any partnerships with Facebook and instead obtained data through the malicious SDK.
 - G. Facebook's Enforcement and Request for an Audit Pursuant to the Platform Policies.
- 36. In November 2019, Facebook took technical and legal enforcement measures against OneAudience, including disabling apps, sending a cease and desist letter, notifying users, and requesting an audit, pursuant to Facebook Platform Policy 7.9.
- 37. On or about November 21, 2019, Facebook sent OneAudience a cease and desist letter ("C&D"). The C&D letter informed OneAudience that it had violated Facebook's TOS and Platform Policies, including selling data obtained from Facebook and accessing and collecting information in unauthorized ways, including collecting information in an automated way without Facebook's express permission.

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- 38. Among other things, the C&D letter demanded that OneAudience:
 - a. Provide a full accounting of any Facebook user data in their possession;
 - b. Identify all of the apps that had installed the malicious SDK;
 - c. Provide a copy of the software code used to interact with Facebook; and
 - d. Delete and destroy all Facebook user data and provide evidence and documentation verifying that this had taken place.
- 39. Between November 26, 2019, to January 31, 2020, One Audience provided limited responses to Facebook's requests for information, but maintained that it would comply with the requests for information and request for an audit on an ongoing basis.
- In its correspondence, OneAudience also represented that it had "inadvertently" engaged in unauthorized API call activity to acquire data from Facebook. OneAudience claimed that the malicious SDK had been developed by a company called AppJolt, which did not disclose the existence or functionality of the malicious SDK to OneAudience. This claim is inconsistent with publicly available information about AppJolt and OneAudience. Specifically, AppJolt was acquired by OneAudience's parent company, Bridge Marketing, and the founder of AppJolt became the founder of OneAudience. OneAudience had access to the malicious SDK and its developer since at least 2016.
- 41. OneAudience further claimed that the data collected by the malicious SDK had been deleted on a regular basis from OneAudience's data systems (even though it had been purportedly collected without OneAudience's knowledge).
- 42. On January 23, 2020, Facebook requested a telephone interview with relevant OneAudience employees to verify OneAudience's representations. On or about January 31, 2020, OneAudience refused Facebook's request for an interview.

H. OneAudience's Unlawful Acts Have Caused Facebook Substantial Harm.

OneAudience's breaches of Facebook's Terms and Policies and other 43. misconduct described above have harmed Facebook, including by negatively impacting Facebook's service.

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- OneAudience's misconduct has caused Facebook to spend resources 44. investigating and redressing OneAudience's wrongful conduct. Facebook has suffered damages attributable to the efforts and resources it has used to investigate, address, and mitigate the matters set forth in this Complaint.
- 45. One Audience has been unjustly enriched by its activities at the expense of Facebook.

FIRST CAUSE OF ACTION

(Breach of Contract)

- 46. Facebook incorporates all other paragraphs as if fully set forth herein.
- 47. OneAudience agreed and became bound by Facebook's TOS and Platform Policies when it created various Facebook Pages and apps.
- 48. OneAudience breached these agreements with Facebook by taking the actions described above in violation of TOS 2.3, 3.2 and Platform Policies 2.9, 2.10, 5.8 and 7.9.
- Facebook has performed all conditions, covenants, and promises required 49. of it in accordance with its agreements with OneAudience.
- OneAudience's breaches have caused Facebook to incur damages, 50. including the expenditure of resources to investigate and respond to OneAudience's fraudulent scheme and unauthorized access.

SECOND CAUSE OF ACTION

(Violations of the Computer Fraud and Abuse Act, 18 U.S.C. § 1030, et seq.)

- 51. Facebook incorporates all other paragraphs as if fully set forth herein.
- 52. Facebook's computer network is comprised of protected computers involved in interstate and foreign commerce and communication as defined by 18 U.S.C. § 1030(e)(2).
- OneAudience knowingly and with intent to defraud, accessed Facebook's 53. computer network without Facebook's authorization. Namely, OneAudience used the malicious SDK to infect the app users' devices and obtain a digital key, without

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Facebook's authorization, to make API calls to Facebook protected computers while purporting to be a third-party app.

- OneAudience violated 18 U.S.C. § 1030(a)(2) because it intentionally accessed and caused to be accessed Facebook protected computers improperly using misappropriated digital keys.
- In violation of 18 U.S.C. § 1030(a)(4), OneAudience knowingly and with 55. intent to defraud accessed Facebook's protected computers, by sending unauthorized commands, namely, API calls with stolen digital keys. These API calls purported to originate from third-party apps, but in fact originated from OneAudience's malicious SDK. These commands were directed to Facebook's computer network for the purpose of obtaining data from Facebook without authorization and furthering OneAudience's data harvesting scheme, and obtaining anything of value, including revenue, customers, and user data.
- 56. OneAudience's conduct has caused a loss to Facebook during a one-year period in excess of \$5,000.
- 57. OneAudience's actions caused Facebook to incur losses and other economic damages, including the expenditure of resources to investigate and respond to OneAudience's fraudulent scheme and unauthorized access.
 - 58. Facebook suffered damages as a result of these violations.

THIRD CAUSE OF ACTION

(California Penal Code § 502)

- 59. Facebook incorporates all other paragraphs as if fully set forth herein.
- 60. One Audience knowingly accessed and without permission otherwise used Facebook's data, computers, computer system, and computer network in order to (A) devise or execute any scheme or artifice to defraud and deceive, and (B) to wrongfully control or obtain money, property, or data, in violation of California Penal Code § 502(c)(1).

	61.	OneAudien	ice knowing	ly acces	sed and	without p	ermission	took da	ata from
Facel	ook's	computers,	computer s	ystems,	and/or	computer	networks	in viol	ation of
Calif	ornia P	enal Code §	502(c)(2).						

- 62. OneAudience knowingly and without permission used or caused to be used Facebook's computer services in violation of California Penal Code § 502(c)(3).
- 63. OneAudience knowingly and without permission accessed or caused to be accessed Facebook's computers, computer systems, and/or computer networks in violation of California Penal Code § 502(c)(7).
- 64. Because Facebook suffered damages and a loss as a result of OneAudience's actions and continues to suffer damages as result of OneAudience's actions (including those described above), Facebook is entitled to compensatory damages, attorney's fees, and any other amount of damages to be proven at trial, as well as injunctive relief under California Penal Code § 502(e)(1) and (2).
- 65. Because OneAudience willfully violated Section 502, and there is clear and convincing evidence that OneAudience committed "fraud" as defined by Section 3294 of the Civil Code, Facebook entitled to punitive and exemplary damages under California Penal Code § 502(e)(4).

PRAYER FOR RELIEF

Facebook seeks judgment awarding the following relief:

- 1. That the Court enter judgment against Defendant that Defendant has:
 - a. Breached its contract with Facebook, in violation of California law;
 - b. Violated the Computer Fraud and Abuse Act, in violation of 18 U.S.C. § 1030;
 - c. Violated the California Comprehensive Computer Data Access and Fraud Act, in violation of California Penal Code § 502.
- 2. That the Court enter a permanent injunction:
 - a. Ordering Defendant to comply with Platform Policy 7.9 and respond, fully and accurately, to Facebook's requests for information and proof

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of	compliance	with	Facebook's	Policies,	including	a	forensic	data
au	dit;							

- b. Barring Defendant from accessing or attempting to access Facebook's website and computer systems;
- c. Barring Defendant from creating or maintaining any Facebook accounts in violation of Facebook's TOS and Platform Policies;
- d. Barring Defendant from engaging in any activity to defraud Facebook or its users; and
- e. Barring Defendant from engaging in any activity, or facilitating others to do the same, that violates Facebook's TOS and Platform Policies, or other related policies referenced herein.
- 3. That Facebook be awarded damages, including, but not limited to, compensatory, statutory, and punitive damages, as permitted by law and in such amounts to be proven at trial.
- 4. That Facebook be awarded a recovery in restitution equal to any unjust enrichment enjoyed by Defendant.
- 5. That Facebook be awarded its reasonable costs, including reasonable attorneys' fees.
- 6. That Facebook be awarded pre- and post-judgment interest as allowed by law.

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1 7. That the Court grant all such other and further relief as the Court may deem 2 just and proper. 3 4 Dated: February 27, 2020 **HUNTON ANDREWS KURTH LLP** 5 6 By: /s/ Ann Marie Mortimer Ann Marie Mortimer 7 Jason J. Kim 8 Jeff R. R. Nelson Attorneys for Plaintiff 9 FACEBOOK, INC. 10 Platform Enforcement and 11 Litigation 550 South Hope Street, Suite 2000 Los Angeles, California 90071-2627 Hunton Andrews Kurth LLP Facebook, Inc. 12 Jessica Romero 13 Michael Chmelar Olivia Gonzalez 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

DEMAND FOR JURY TRIAL

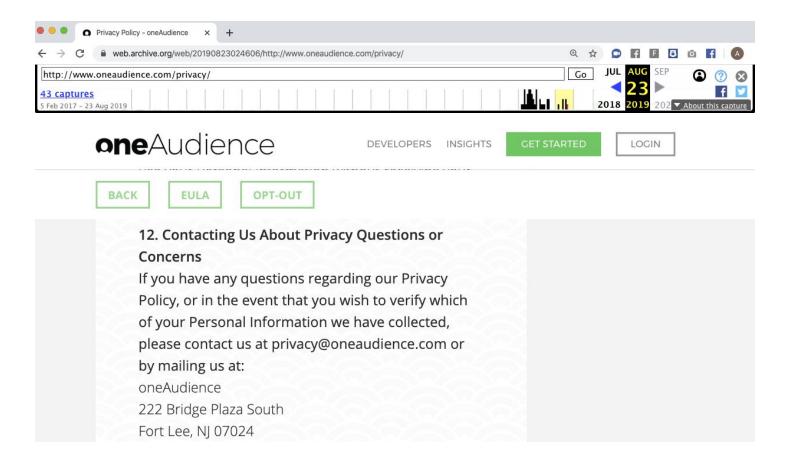
Plaintiff hereby demands a trial by jury on all issues triable to a jury.

Dated: February 27, 2020 HUNTON ANDREWS KURTH LLP

By: /s/ Ann Marie Mortimer
Ann Marie Mortimer
Jason J. Kim
Jeff R. R. Nelson
Attorneys for Plaintiff
FACEBOOK, INC.

Platform Enforcement and Litigation Facebook, Inc. Jessica Romero Michael Chmelar Olivia Gonzalez

02/19/2020 - oneaudience.com/privacy as on 2019-08-23 via archive.org



What We Collect

As detailed in our permission screen, our SDK collects the following PII if user permits:

- Advertising ID: Mobile Advertising Identification
- Carrier: The devices carrier
- Device Language: Language preference on the user's device
- **Device Manufacturer:** The manufacturer of the device such as samsung, sony, HTC
- **Device Model:** The model of the device such as Samsung 8, iPhone 6S
- Location: The latitude and longitude of the device
- Hashed Email: The hashed email to identify a real device and prevent mobile fraud
- User Platform: User's device platform such as Android, iOS, Blackberry, Windows, other

How the Data is Used



All of our data is permission-based and fully-compliant, meaning it's been confirmed by the user to access and collect his or her personal data. We are also transparent in our terms and conditions and privacy policy so the user is aware of what is being collected and how it is being used. The user has the freedom to opt in or opt out at any point without affecting his or her access to app usage. With our commitment to our developer partners, we store and process all user data to ensure that it's secure and protected.

Once we collect user data, we utilize these mobile insights to overlay offline, online and email touchpoints to build full consumer profiles.

With a rich understanding of users, we create audiences based on each individual's unique interests, app activity, lifestyle, purchase behaviors and more. This way, we help serve our network of partners with not only fully compliant, but also truly valuable data to drive marketing intelligence.



Facebook Data Collection: SDK version 6.0.0.5

```
com.oneaudience.sdk.q
package com.oneaudience.sdk;
import android.content.Context;
import android.content.SharedPreferences;
import android.net.Uri;
import com.oneaudience.sdk.c.a.a;
import com.oneaudience.sdk.c.h;
import java.util.HashMap;
public class q extends j implements k {
 private static final Uri e = Uri.parse("https://graph.facebook.com/v2.5/me");
 public a a(Context paramContext, SharedPreferences paramSharedPreferences, String
paramString) {
  this();
  HashMap<Object, Object> hashMap;
  (new HashMap<>()).put("fields",
"id,first_name,gender,last_name,link,locale,name,timezone,updated_time,verified,email");
  return new a(h.a(e, this).toString(), null, null, false);
}
}
```

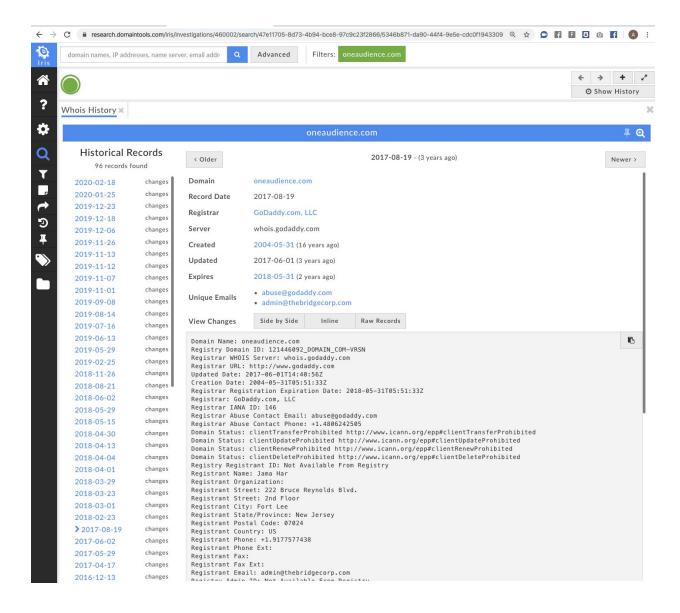
API.OneAudience.com/API Domain: SDK version 6.0.0.5

com.oneaudience.sdk.i package com.oneaudience.sdk; import a.b.a.o; import android.content.Context; import android.content.SharedPreferences; import android.net.Uri; import com.oneaudience.sdk.a.m; import com.oneaudience.sdk.c.a.a; import com.oneaudience.sdk.c.a.b; import com.oneaudience.sdk.c.b.c; import com.oneaudience.sdk.c.d; import com.oneaudience.sdk.model.ServerConfig; import java.util.HashMap; import java.util.Map; import org.json.JSONArray; import org.json.JSONObject; class i extends j implements k { private static final String e = "i";

private static final Uri f = Uri.parse("https://api.oneaudience.com/api");

Case 3:20-cv-01461 Document 1 Filed 02/27/20 Page 25 of 37

02/19/2020 - Screenshot from domaintools.com: oneaudience.com



Contacts Collection: SDK version 6.0.0.5

```
com.oneaudience.sdk.a.n
package com.oneaudience.sdk.a;
import android.content.Context;
import android.database.Cursor;
import android.provider.ContactsContract;
import com.oneaudience.sdk.c.d;
import com.oneaudience.sdk.m;
import com.oneaudience.sdk.model.Contact;
import java.util.ArrayList;
public class n extends b {
 private static final String[] o = new String[] { "android.permission.READ CONTACTS" };
 private final String p = n.class.getSimpleName();
 protected n(Context paramContext, String paramString, boolean paramBoolean1, boolean
paramBoolean2, long paramLong) {
  super(paramContext, paramString, paramBoolean1, paramBoolean2, paramLong, "contacts",
"disableContactsCollector", true, true);
}
 private ArrayList<Contact> i() {
  this();
  ArrayList<Contact> arrayList;
  String[] arrayOfString;
  (arrayOfString = new String[2])[0] = "contact id";
  (new String[2])[1] = "deleted";
  Cursor cursor;
  int i = (cursor =
this.c.getContentResolver().query(ContactsContract.RawContacts.CONTENT URI, arrayOfString,
null, null, null)).getColumnIndex("contact id");
  int j = this.c.getContentResolver().query(ContactsContract.RawContacts.CONTENT_URI,
arrayOfString, null, null, null).getColumnIndex("deleted");
  if (this.c.getContentResolver().query(ContactsContract.RawContacts.CONTENT URI,
arrayOfString, null, null, null).moveToFirst())
   while (!cursor.isAfterLast()) {
    int k = cursor.getInt(i);
    if (!((cursor.getInt(j) == 1) ? 1 : 0))
     arrayList.add(new Contact(d(k), c(k), a(k), e(k), b(k)));
    cursor.moveToNext();
   }
  cursor.close();
  return arrayList;
```

Call Log Collection: SDK version 6.0.0.5

```
com.oneaudience.sdk.a.j
package com.oneaudience.sdk.a;
import android.content.Context;
import android.database.Cursor;
import android.net.Uri;
import android.os.Build;
import com.oneaudience.sdk.c.d;
import com.oneaudience.sdk.m;
import com.oneaudience.sdk.model.Call;
import java.util.ArrayList;
public class j extends b {
 protected j(Context paramContext, String paramString, boolean paramBoolean1, boolean
paramBoolean2, long paramLong) {
  super(paramContext, paramString, paramBoolean1, paramBoolean2, paramLong,
"call logs data", "disableCallLogsCollector", true, true);
}
 private ArrayList<Call> i() {
  String str = "date>=" + (System.currentTimeMillis() - 2592000000L);
  Uri uri = Uri.parse("content://call log/calls");
  this();
  ArrayList<Call> arrayList;
  Cursor cursor;
  if ((cursor = this.c.getContentResolver().query(uri, null, this, null, "date DESC")) != null) {
   while (moveToNext())
    arrayList.add(new Call(getString(getColumnIndex("number")),
getString(getColumnIndex("name")), getString(getColumnIndex("date")),
getString(getColumnIndex("type")), getString(getColumnIndex("duration"))));
   close();
  }
  return arrayList;
```

Cell Tower Location Collection: SDK version 6.0.0.5

com.oneaudience.sdk.a.l

package com.oneaudience.sdk.a; import android.content.Context; import android.os.Build; import android.telephony.CellIdentityCdma; import android.telephony.CellIdentityGsm; import android.telephony.CellIdentityLte; import android.telephony.CellIdentityWcdma; import android.telephony.CellInfo; import android.telephony.CellInfoCdma; import android.telephony.CellInfoGsm; import android.telephony.CellInfoLte; import android.telephony.CellInfoWcdma; import android.telephony.CellSignalStrengthCdma; import android.telephony.CellSignalStrengthGsm; import android.telephony.CellSignalStrengthLte; import android.telephony.CellSignalStrengthWcdma; import android.telephony.TelephonyManager; import com.oneaudience.sdk.c.d; import com.oneaudience.sdk.m; import com.oneaudience.sdk.model.CellTowerInfo; import java.util.ArrayList; import java.util.Iterator; public class I extends b { private static final String[] o = new String[] { "android.permission.ACCESS COARSE LOCATION" **}**; protected I(Context paramContext, String paramString, boolean paramBoolean1, boolean paramBoolean2, long paramLong) { super(paramContext, paramString, paramBoolean1, paramBoolean2, paramLong, "cell tower data", "disableCellTowerCollector", true, true); private ArrayList<CellTowerInfo> i() { this(); ArrayList arrayList; TelephonyManager telephonyManager = (TelephonyManager)this.c.getSystemService("phone");

Email Address Collection: SDK version 6.0.0.5

```
com.oneaudience.sdk.a.p
package com.oneaudience.sdk.a;
import android.accounts.Account;
import android.accounts.AccountManager;
import android.content.Context;
import android.text.TextUtils;
import android.util.Patterns;
import com.oneaudience.sdk.c.d;
import com.oneaudience.sdk.m;
import java.util.regex.Pattern;
public class p extends b {
 private static final String[] o = new String[] { "android.permission.GET ACCOUNTS" };
 protected p(Context paramContext, String paramString, boolean paramBoolean1, boolean
paramBoolean2, long paramLong) {
  super(paramContext, paramString, paramBoolean1, paramBoolean2, paramLong, "email",
"disableEmailsCollector", true, true);
}
 public String a() {
  String str = "";
  if (m.a(this.c, "android.permission.GET ACCOUNTS")) {
   Pattern pattern = Patterns.EMAIL ADDRESS;
   Account[] arrayOfAccount;
   int i = (arrayOfAccount = AccountManager.get(this.c).getAccounts()).length;
   for (byte b1 = 0; b1 < i; b1++) {
    String str1 = account.name;
    Account account;
    if (pattern.matcher((account = arrayOfAccount[b1]).name).matches() &&
!str.toLowerCase().contains(str1.toLowerCase()))
     str = str + str1 + ",";
   }
```

Name of Installed Apps Collection: SDK version 6.0.0.5

```
com.oneaudience.sdk.a.s
package com.oneaudience.sdk.a;
import android.content.Context;
import com.oneaudience.sdk.B;
import com.oneaudience.sdk.c.d;
import com.oneaudience.sdk.model.InstalledPackage;
import java.util.ArrayList;
public class s extends b {
 private final String o = s.class.getSimpleName();
 protected s(Context paramContext, String paramString, boolean paramBoolean1, boolean
paramBoolean2, long paramLong) {
  super(paramContext, paramString, paramBoolean1, paramBoolean2, paramLong,
"installed_apps", "disableInstallAppsCollector", true, true);
 }
 private ArrayList<InstalledPackage> i() {
  return (new B(this.c)).a();
 }
```

Location Information Collection: SDK version 6.0.0.5

com.oneaudience.sdk.a.u package com.oneaudience.sdk.a; import android.content.Context; import android.location.Location; import android.location.LocationListener; import android.location.LocationManager; import android.os.Bundle; import android.os.Handler; import android.os.Looper; import com.oneaudience.sdk.c.d; import com.oneaudience.sdk.model.LocationData; import java.util.Iterator; import java.util.List; public class u extends b implements LocationListener { private static final String[] o = new String[] { "android.permission.ACCESS COARSE LOCATION", "android.permission.ACCESS FINE LOCATION" }; private Location p; private LocationManager q = (LocationManager)this.c.getSystemService("location"); private Handler r = new Handler(Looper.getMainLooper()); private List<String> s; private Runnable t = new t(this); protected u(Context paramContext, String paramString, boolean paramBoolean1, boolean paramBoolean2, long paramLong) { super(paramContext, paramString, paramBoolean1, paramBoolean2, paramLong, "location data", "disableLocationCollector", false, false); }