

NATIONAL WHITE COLLAR CRIME CENTER

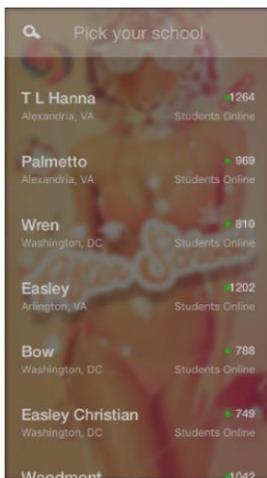


Background

The AfterSchool application was created by Michael Callahan and Cory Levy as an environment in which teens could be themselves, make new connections, and participate in positive activity. AfterSchool promotes a strict zero tolerance policy and prohibits all cyberbullying and threats. Per the Apple [App Store](#), After School was originally released for iOS in October of 2014 by Ambient Corporation and was eventually released and available for Android devices on the [Google Play](#) store directly through After School.

What is the After School App?

AfterSchool is a private social network that allows American high school students to share and connect with other students at their school. Once on the application students can either share while revealing the registered name of their accounts or choose to share anonymously.



In order to get access to the application, it must first be downloaded to the local device via the Apple App Store or the Google Play Store. Once installed and launched users will be directed through a series of initial prompts to agree or disagree to the permissions requested from the application.

Using the location services, the application then populates a listing of recognized schools in the surrounding area and prompts the user to “Pick your school” or users can search for their particular school. Next users are asked to “Pick Your Class Year”, with the four current years listed as well as an option for other or everyone else. Once selections have been made, users are then prompted to allow the application to search Facebook to verify and prove that you the user is a student of the particular school selected. It does this by checking the information within the users Facebook account, and also by having the user select other friends



that also go to the particular school. Within the application users can share and view messages on the private school message boards via text, pictures, or video.

The app developer Michael Callahan stated, "Growing up, I dealt with my girlfriend's attempted suicides, being bullied because I was different, child abuse, and being taken advantage of sexually. I want empower those who are not able to speak up." The co-founder Cory Levy added "After School was created with the end goal in mind to create a significant and measurable social impact in a safe environment."ⁱ

AfterSchool has tried to take measures in keeping the application "safe" for use for the teen target audience by implementing the ability for users themselves to remove content, offering community guidelines for usage, an emergency notification system that will alert school officials and law enforcement when student safety is at risk, human moderators that work 24/7 reviewing shared content, as well as live counseling for student users that want to talk anonymously to crisis counselors at no cost.

Importance to Law Enforcement

Multiple incidents have occurred, which is why law enforcement need to be aware and have the knowledge of process to work with AfterSchool to ensure child safety. For example, in June of 2016 in Maine, a group of students alerted school officials of a post in which a [student had shared a gun emoji and a clip of a person brandishing a gun](#). The school officials were quick to action, cancelling classes and alerting law enforcement upon which the student was charged with a felony count of terrorizing.

Investigative Information

Information obtained from AfterSchool

According to the [SEARCH ISP List](#), AfterSchool is located at 158 South Park Street San Francisco, CA 94107. Legal process can be served to this mailing address and per the [Law Enforcement Guidelines](#) the requests made must identify records with particularity and include the following:

A screen shot(s) of the post(s) related to the inquiry or request.

Name and locations of the users' School

Date of the post(s) at issue

Contents of the post(s) at issue

*The name of the issuing authority, badge/ID number of responsible agent, email address
From a law-enforcement domain, and direct contact phone number.*

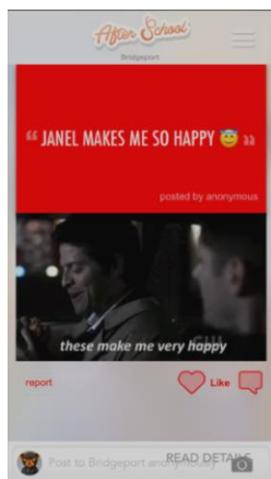
AfterSchool also accepts and recognizes preservation requests in accordance with SCA, 18 U.S.C Section 2703(f) and states they will preserve records in connection with official criminal investigations for 90 days.

With regards to user notification, AfterSchool has reserved the right to notify the user of the company's knowledge of a violation of Terms of Service, Privacy Policy, or Community Guidelines.

**Without formal legal request AfterSchool would not provide what information could be returned.*

Information Retrieved from an iOS Device

The Cybercrime Section with the National White Collar Crime Center (NW3C) downloaded, installed, and utilized the After School application version 1.87 on an Apple iPhone 6 model



MG4X2LL/A running iOS version 10.0.2. The test machine was an Apple MacBook running MacOS Sierra. A logical extraction of the device was completed using Katana Forensics Lantern. The only artifact recovered during the logical extraction was the private/var/mobile/media folder which contained pictures and videos from the camera roll, as well as voice memos. Examining the "Files" button located no files relating to the app or its usage. On a second test machine running Windows 7 Ultimate Service Pack 1 – 64 bit and MSABs XRY 7.1 the installed app was designated as com.ambient.afterschool in the "installed apps" section with the name (AfterSchool), package name (com.ambient.afterschool), version, permission (Locations – Previously Enabled), and path

(/private/var/mobile/containers/data/application/297F5C54-BC45-440D-B559-

8B2271A15F21) could be identified. Also looking at the event logs every time the app was logged into an entry was generated showing the "Apple Network Usage" which gave the date and time of log in, as well as the TrafficIn (cellular) and TrafficOut (cellular) usage.

There were also two files that were generated titled "attributeDupStore.txt" and "eventsDupStore.txt". Each of these files had a duplicate file with .bak extensions.

The attributeDupStore.txt file contained the following information:

carrier	nr.vendorID
0 AT&T	0 DDBF5ABC-4E4B-46E7-B857-1749C5446BED
deviceManufacturer	osMajorVersion
0 Apple	0 10
deviceModel	osName
0 iPhone7,2	0 iOS
install	osVersion
2 1	0 10.0.2
memUsageMb	sessionDuration
0 66.503906	1 0 453.822000026703
newRelicVersion	sessionId
0 5.4.1	0 3E5B1C37-9434-47B0-83F2-15878D557482
nr.noSecureUDID	uuid
2 1	0 DDBF5ABC-4E4B-46E7-B857-1749C5446BED

This information would have to be verified with the app developer to see if there is a correlation between the user's phone and any posting they user may have had.

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The eventsDupStore.txt file contained the following information:

MobileInteractionDisplayUICompatibilityInputViewController 147619509333665.994
interactionDuration1018.548095703125
Mobile InteractionDisplay UICompatibilityInputViewController 147619509333665.994
interactionDuration1018.548095703125
MobileInteractionDisplayUICompatibilityInputViewController 147619509343166.089
interactionDuration1051.588134765625
Mobile InteractionDisplay UICompatibilityInputViewController 147619509343166.089
interactionDuration1051.588134765625
MobileInteractionDisplayUICompatibilityInputViewController 147619509343166.089
interactionDuration109.86083984375
Mobile InteractionDisplay UICompatibilityInputViewController 147619509343166.089
interactionDuration109.86083984375

Examining the rest of the data extracted show no signs of pictures, graphics, avatars, posting, users, etc. linking back to the program or the logged in user.

Information Retrieved from an Android Device

The Cybercrime Section with NW3C downloaded, installed, and utilized the After School application version 1.4.6 on a Samsung Galaxy S7 model SM-G9300 running Android version 6.0 Marshmallow. The first test machine was running Windows 8.1 Enterprise and Oxygen Forensic Detective 8.5.1.5. The second test machine used was running Windows 7 Ultimate Service Pack 1 – 64 bit and MSABs XRY 7.1. Both forensic utilities extracted the location where the application is stored (/storage/emulated/0/Android/data/com.whatisone.afterschool), however no pertinent data was recovered.

Sources

¹Rogan, Stephanie. "After School Raises \$16.4 Mln in Series A Funding." *The PE HUB Network*. N.p., 3 Feb. 2016. Web. 7 Oct. 2016.

Bennett, Alan. "Maine Teen Faces Felony Charge after Posting Gun Emoji on Social Media App." *BDN Maine*. N.p., 6 June 2016. Web. 7 Oct. 2016.

"After School Safety Center." *After School*. N.p., n.d. Web. 7 Oct. 2016.



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