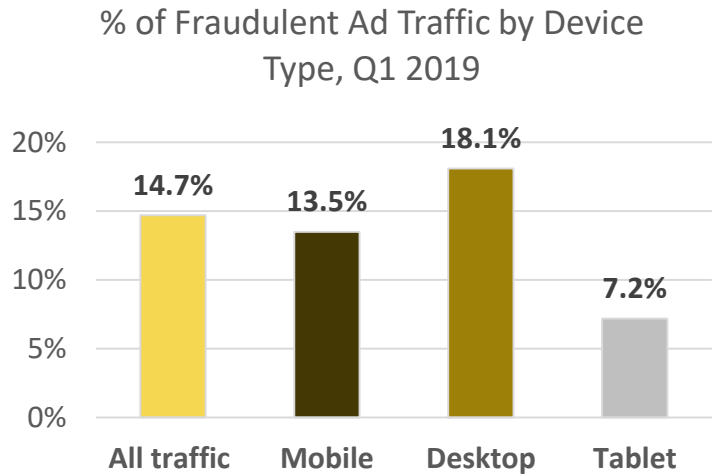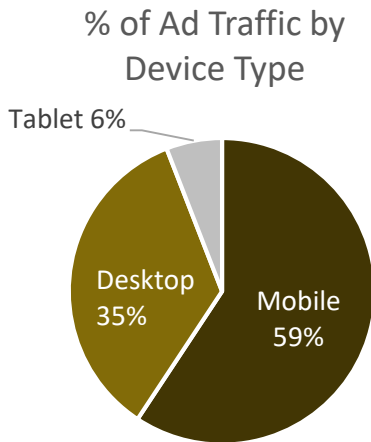# Programmatic Ad Fraud Report
Q1 2019

This report includes the percentages of fraud found in programmatic digital advertising traffic during the first quarter (Q1) of 2019. On a monthly basis, Fraudlogix's pixel-based technology regularly monitors data from 640 million unique users, 1.2 billion unique devices, and 300+ million URLs and apps. We map the latest devices, locations, bots, behaviors, and hacking tactics that are being used by digital fraudsters.

In this report invalid traffic (IVT) and sophisticated invalid traffic (SIVT) —i.e., ad traffic that was generated by bots, malware, and through hijacked devices — is referred to as fraudulent traffic.
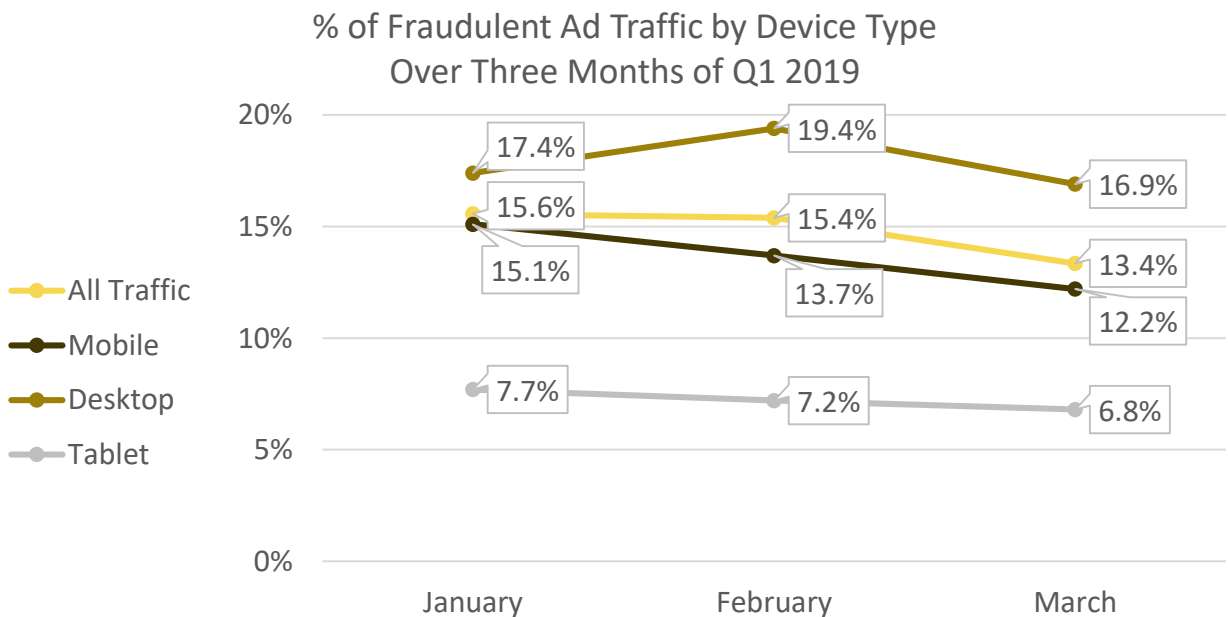
Q4 Highlights

- 14.7% of all ad traffic was fraudulent, an 11% increase from Q4 2018.

- 13.5% of mobile ad traffic fraudulent, a 10% increase from Q4 2018.

- 18.1% of desktop display ad traffic was fraudulent, a 13.6% increase from Q4 2018.

- January saw the highest percentage of fraudulent traffic at 15.6%.

- The Latin American region (LATAM) had the highest percentage of fraudulent traffic globally at 23%.

- A majority (68%) of ad traffic came from Chrome browsers, and 16% of that was fraudulent.

- Internet Explorer had the highest percentage of fraudulent traffic (29%) among the six most-used browsers.

- The highest percentage of ad traffic (20%) came from devices running the Android 8 operating system, followed by 16% of devices running the Windows 10 operating system.

- Among the ten most-used operating systems, the highest percentage of fraudulent ad traffic (21.12%) came from devices running the Windows 7 operating system, just surpassing the Windows 8 operating system, which had 21.11% fraudulent ad traffic.

Q1 2019 Fraudulent Ad Traffic by Device Type: In Q1 2019, 14.7% of all ad traffic was fraudulent, 13.5% of ad traffic from mobile devices was fraudulent, 18.1% of ad traffic from desktop devices was fraudulent, and 7.2% of ad traffic from tablet devices was fraudulent. 59% of all traffic was mobile, 35% desktop, and 6% tablet.

% of Ad Traffic by Device Type

Tablet 6%

Desktop 35%

Mobile 59%

% of Fraudulent Ad Traffic by Device Type, Q1 2019

	All traffic	Mobile	Desktop	Tablet
	14.7%	13.5%	18.1%	7.2%

Fraudulent Ad Traffic by Device Type Over Three Months During Q1 2019: Looking at all traffic, January saw the highest percentage of fraudulent traffic at 15.6%. January also had the highest percentage of fraudulent mobile traffic at 15.1%. February had the highest percentage of fraudulent desktop traffic at 19.4%.

% of Fraudulent Ad Traffic by Device Type Over Three Months of Q1 2019

Legend:
- All Traffic
- Mobile
- Desktop
- Tablet

	January	February	March
Desktop	17.4%	19.4%	16.9%
All Traffic	15.6%	15.4%	13.4%
Mobile	15.1%	13.7%	12.2%
Tablet	7.7%	7.2%	6.8%

Q1 2019 Fraudulent Ad Traffic By Global Geographic Business Region: Looking at all data during Q1, broken down into four major global business regions [Asia–Pacific, including India (APAC); Europe, the Middle East and Africa, including Russia (EMEA); Latin America, including Mexico (LATAM); and North America (NA)], we found that ad traffic coming from the LATAM region had the highest percentage of fraud at 23.0%, followed by the EMEA region with 12.8%, North America at 12.0% and APAC region with 6.2%.
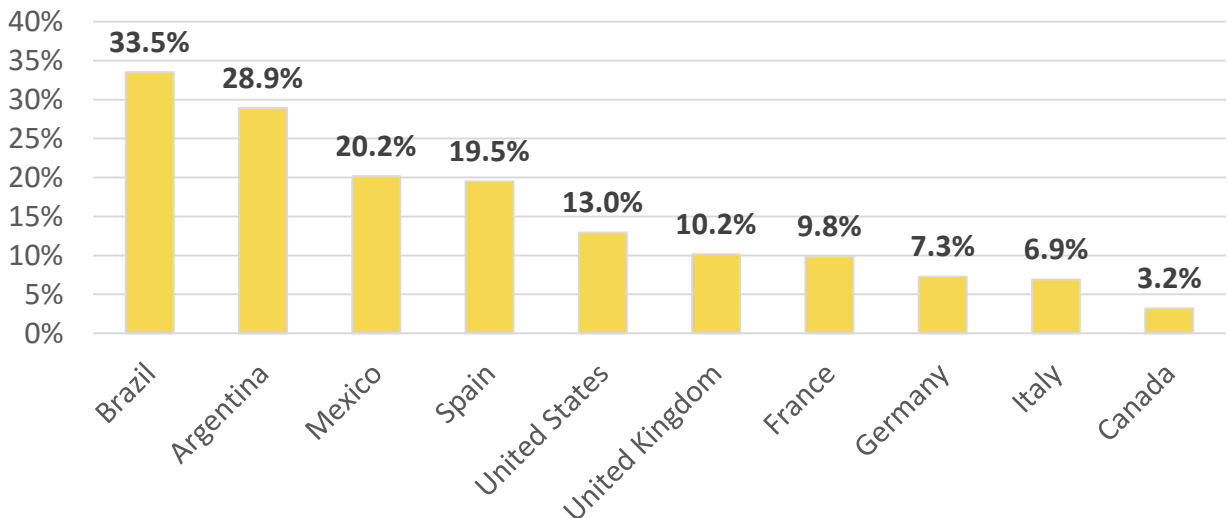
% of Fraudulent Ad Traffic by Global Region, Q1 2019

Region	%
APAC	6.2%
EMEA	12.8%
LATAM	23.0%
NA	12.0%
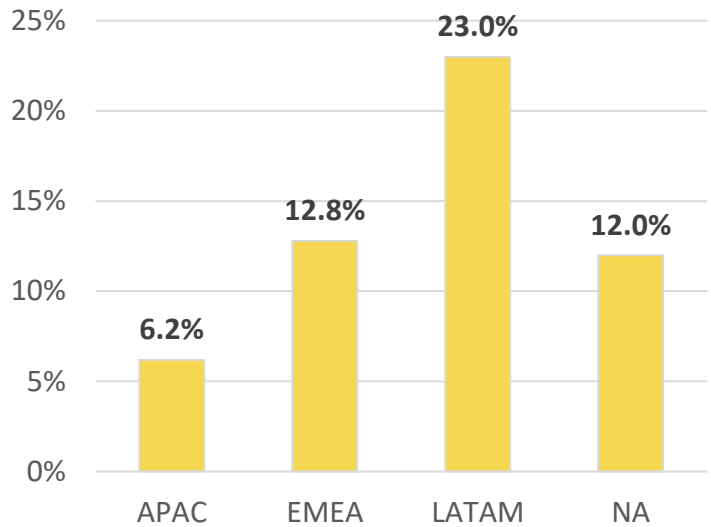
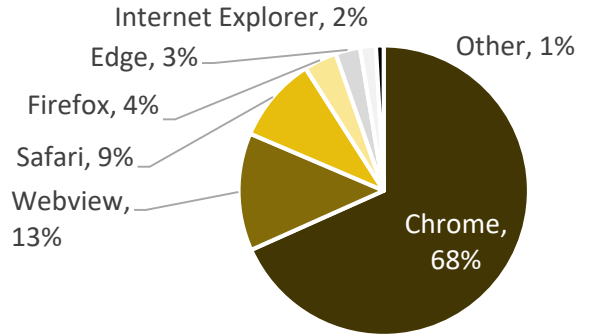**Q1 2019 Fraudulent Ad Traffic By Country:**

Among the ten countries with the highest volume of ad traffic, Brazil had the highest percentage of fraudulent traffic at 33.5%, followed by Argentina with 28.9%, Mexico with 20.2%, Spain with 19.5%, United States with 13.0%, United Kingdom with 10.2%, France with 9.8%, Germany with 7.3%, Italy with 6.9%, and Canada with 3.2%.

% of Fraudulent Ad Traffic by Country, Q1 2019

| Country	%
Brazil	33.5%
Argentina	28.9%
Mexico	20.2%
Spain	19.5%
United States	13.0%
United Kingdom	10.2%
France	9.8%
Germany	7.3%
Italy	6.9%
Canada	3.2%

Q1 2019 Percent of Ad Traffic By Browser

In Q1 2019 we found that 68% of ad traffic came from the Chrome browser, followed by 13% from in-app Webview browsers, 9% from Safari, 4% from Firefox, 3% from Edge, and 2% from Internet Explorer.

Internet Explorer, 2%
Edge, 3%
Firefox, 4%
Safari, 9%
Webview, 13%
Other, 1%
Chrome, 68%

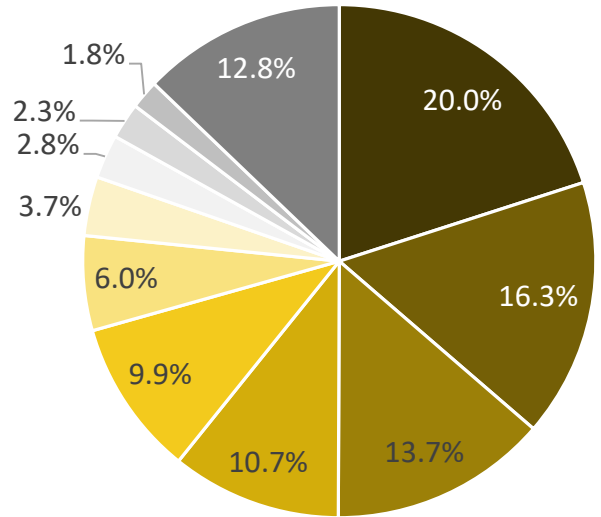## Q1 2019 Percent of Fraudulent Ad Traffic By Browser

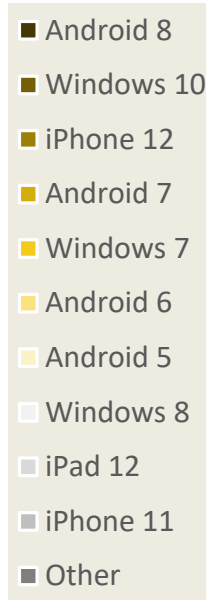We found that ad traffic from the Internet Explorer browser had the highest percentage of fraud at 29.4%, followed by Chrome at 16.1%, Firefox at 13.4%, Edge at 12.2%, Safari at 8.2%, and Webview at 6.2%.

% of Fraudulent Ad Traffic by Browser, Q1 2019

Browser	Percentage
Internet Explorer	29.4%
Chrome	16.1%
Firefox	13.4%
Edge	12.2%
Safari	8.2%
Webview	6.2%
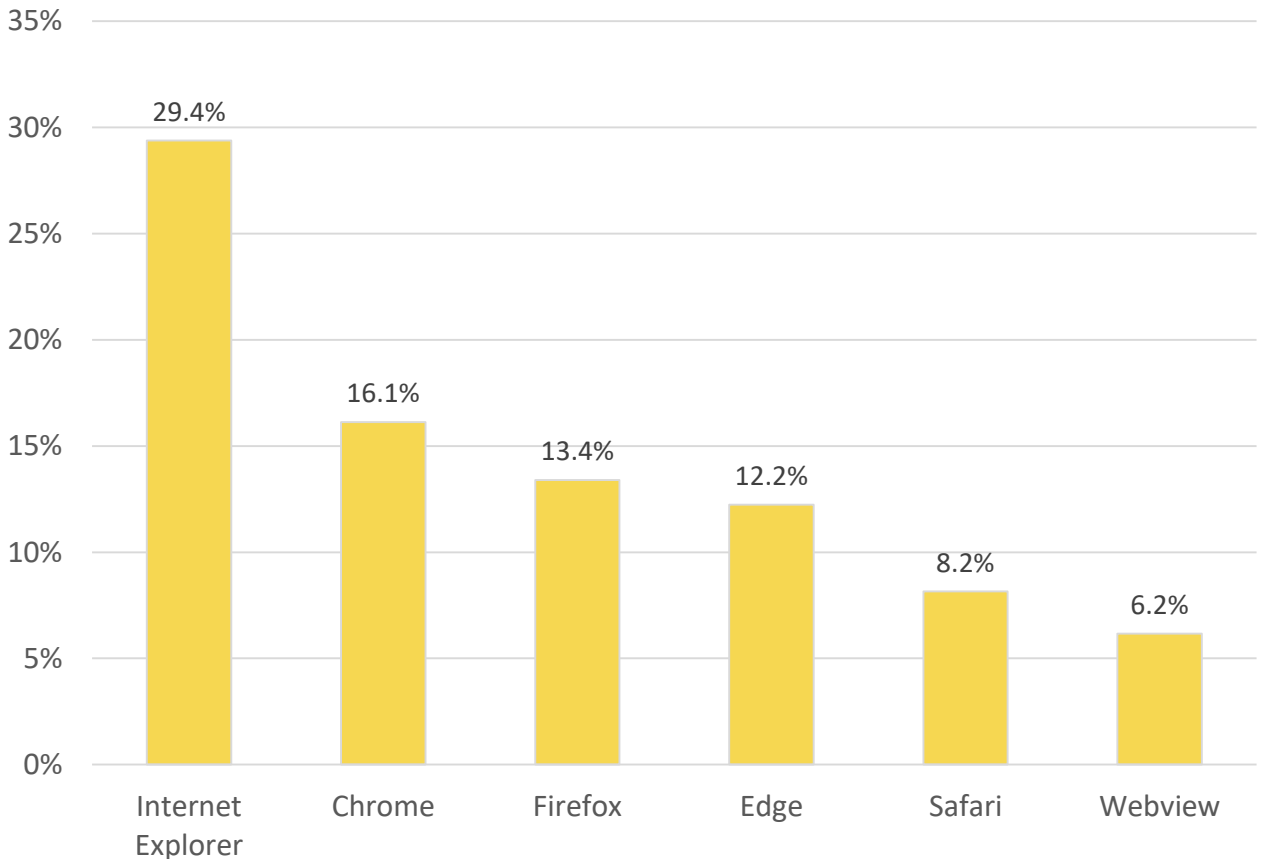
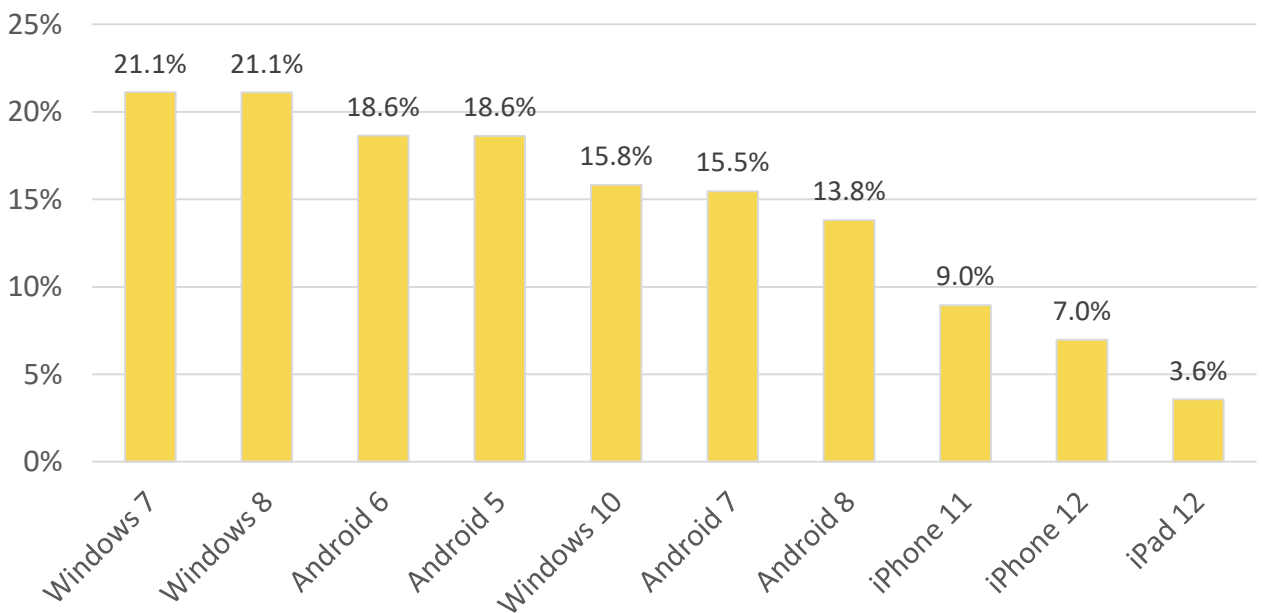## Q1 2019 Percent of Ad Traffic By Operating System (OS)

In Q1 2019, we found that the largest percentage of ad traffic (20%) came from devices running the Android 8 OS, followed by 16.3% running Windows 10, 13.7% iPhone 12, 10.7% Android 7, 9.9% Windows 7, 6% Android 6, 3.7% Android 5, 2.8% Windows 8, 2.3% iPad 12, and 1.8% iPhone 11.

Legend:
- Android 8 — 20.0%
- Windows 10 — 16.3%
- iPhone 12 — 13.7%
- Android 7 — 10.7%
- Windows 7 — 9.9%
- Android 6 — 6.0%
- Android 5 — 3.7%
- Windows 8 — 2.8%
- iPad 12 — 2.3%
- iPhone 11 — 1.8%
- Other — 12.8%

Q1 2019 Percent of Fraudulent Ad Traffic By Operating System

Of the 10 operating systems seen most often, ad traffic coming from Windows 7 had the highest percentage of fraud at 21.12%, followed closely by Windows 8 at 21.11%, and then Android 6 at 18.64% and Android 5 at 18.62%.

% of Fraudulent Traffic by OS, Q1 2019

OS	%
Windows 7	21.1%
Windows 8	21.1%
Android 6	18.6%
Android 5	18.6%
Windows 10	15.8%
Android 7	15.5%
Android 8	13.8%
iPhone 11	9.0%
iPhone 12	7.0%
iPad 12	3.6%

fraudlogix

Quarter Over Quarter Change: Comparing Q1 2019 to Q4 2018

	Q1 2019	Q4 2018	Difference (In Percentage Points)
Fraudulent Traffic by Device Type			
Mobile	13.5%	12.3%	+ 1.2
Desktop	18.1%	16.0%	+ 2.2
Tablet	7.2%	6.6%	+ 0.6
All Traffic	14.7%	13.3%	+ 1.5
Fraudulent Traffic by Global Region			
APAC	6.2%	6.8%	- 0.6
EMEA	12.8%	11.0%	+ 1.9
LATAM	23.0%	15.8%	+ 7.3
NA	12.0%	13.1%	- 1.1
Fraudulent Traffic by Browser			
Chrome	16.1%	13.9%	+ 2.2
Webview	6.2%	8.5%	- 2.3
Safari	8.2%	8.5%	- 0.4
Firefox	13.4%	12.1%	+ 1.3
Edge	12.2%	7.8%	+ 4.5
Internet Explorer	29.4%	25.9%	+ 3.5
Fraudulent Traffic by Operating System (OS)			
Android 8	13.8%	11.2%	+ 2.6
Windows 10	15.8%	14.1%	+ 1.8
iPhone 12	7.0%	7.3%	- 0.3
Android 7	15.5%	12.5%	+ 3.0
Windows 7	21.12%	18.8%	+ 2.4
Android 6	18.6%	15.0%	+ 3.6
Android 5	18.6%	14.6%	+ 4.0
Windows 8	21.11%	16.7%	+ 4.4
iPad 12	3.6%	3.3%	+ 0.2
iPhone 11	9.0%	10.0%	- 1.0

About Fraudlogix

Fraudlogix is an online advertising fraud detection company founded in 2010 by industry veterans with a deep understanding of the digital ad ecosystem. It specializes in ad fraud solutions for desktop, mobile, in-app, OTT, and video environments for the programmatic and affiliate spaces. Today, Fraudlogix monitors data from over 640 million unique users, 300+ million websites and apps and 1.2 billion unique devices monthly.

Visit **www.fraudlogix.com** for more information or contact us at **sales_req@fraudlogix.com**.