Consumer View on Mobile Security

Allot MobileTrends Report H1/2017

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Executive Summary

Mobile malware is a real and major threat hitting consumers, businesses, and governments. While the mobile industry knows a lot about online threats, how much do mobile consumers know? The Allot MobileTrends team went directly to consumers to find out.

In an online survey which was answered by 2150 mobile users from 80+ countries, we asked participants if they know about mobile malware threats; whether they protect their smartphones and themselves against online threats; how ready they are to adopt mobile security services; and what is their perception of the communication service provider's (CSP) role in protecting them online. Allot MobileTrends Report H1/2017, Consumer View on Mobile Security, presents our findings and insight.

Highlights of Findings

- 68% of global mobile consumers say they are aware of malware. Of these, 1 in 7 have experienced a malware attack in the past 12 months.

- 26% of global mobile consumers contact their CSP for help with a malware attack.

- 89% of global mobile consumers do not pay to protect their mobile device(s) against online threats.

- 61% of global mobile consumers say they would buy mobile security services from their service provider.

Surprisingly, six out of ten consumers say they would like to buy mobile security services from their service provider. Rather than independently evaluate, download, set up, and maintain security apps for each of their mobile devices, consumers would like a one-stop-shop for online threat protection. But currently, only 11% actually pay to protect themselves and their devices. This disparity seems to indicate either a lack security services in CSP mobile data plans, or that security services already on offer are not attractive enough. Clearly there is a significant opportunity for CSPs to capitalize on the unfulfilled demand for personal mobile security services. Let's take a closer look.

Introduction

As the Internet continues to go mobile, smartphones and tablets have become prime targets for malware attacks. The threat is real. But how much do consumers know about the risk of mobile malware? Do they protect their mobile devices from online threats? Have they been victimized by malware? Who do they call for help during or after a malware attack?

In previous Allot MobileTrends reports[1] we analyzed online behaviors and apps that put mobile users at greater risk for malware infection. We further examined[2] how global sports events induce mobile fans to engage with unfamiliar apps and websites, exposing them to greater potential for malware infection. This time, the Allot MobileTrends team went directly to consumers to find out what they know about malware and whether they protect themselves and their smartphones from online threats.

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[1] Allot MobileTrends H1/2016, Mobile Users at Risk

[2] Allot MobileTrends EUFA Euro 2016, How Major Sport Events put Mobile Users at Risk
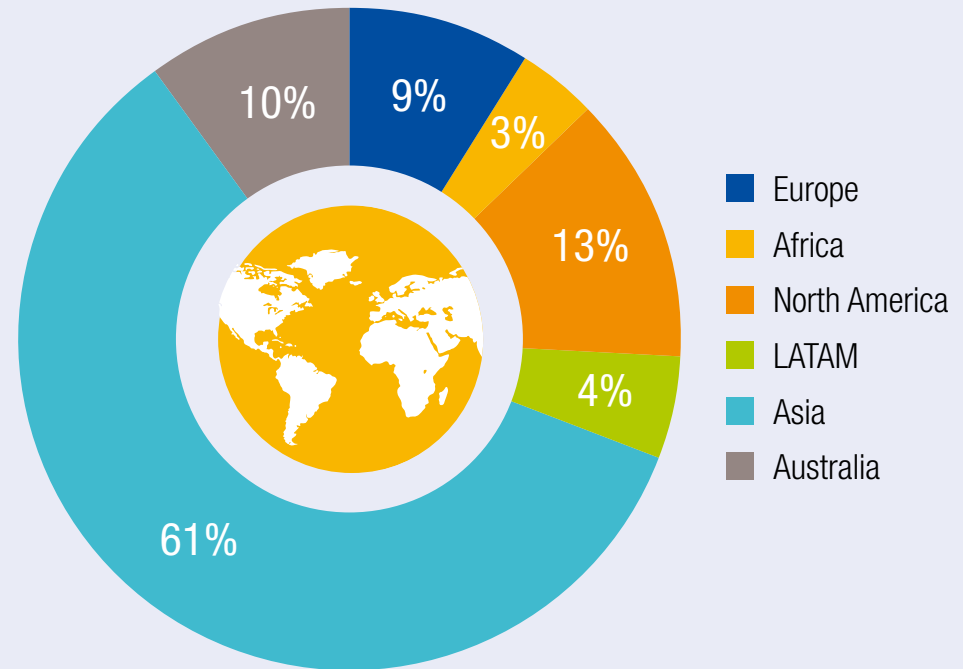
Methodology

We conducted an online survey that was answered by approximately 2,150 self-selected participants from more than 80 countries. In addition to questions regarding malware and mobile protection, we collected basic socio-demographic information to analyze similarities and differences according to age, gender, region, and number of mobile devices that people use to connect to the Internet.

- **Age Group:**
  under 15; 15-24; 25-59; 60+

- **Gender:**
  Male / Female

- **Region:**
  Africa, Asia, Australia, Europe, LATAM, North America

- **Number of mobile devices:**
  1-2 devices, 3-4 devices, 5+devices

- **Mobile device OS:**
  Android, iOS, Windows, Other

Allot Consumer Security Survey Respondents by Region

- 9% Europe
- 3% Africa
- 13% North America
- 4% LATAM
- 61% Asia
- 10% Australia

Legend:
- Europe
- Africa
- North America
- LATAM
- Asia
- Australia

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Mobile consumers have heard about malware

The first indication of the level of user awareness is to look at their understanding of the main terminology that is used to explain and refer to different issues related to security. (Bryant, et al[3]).

68% of global mobile consumers who responded to the survey are aware of malware threats coming from the Internet.

Most mobile consumers are aware of malware threats

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Not aware
32%
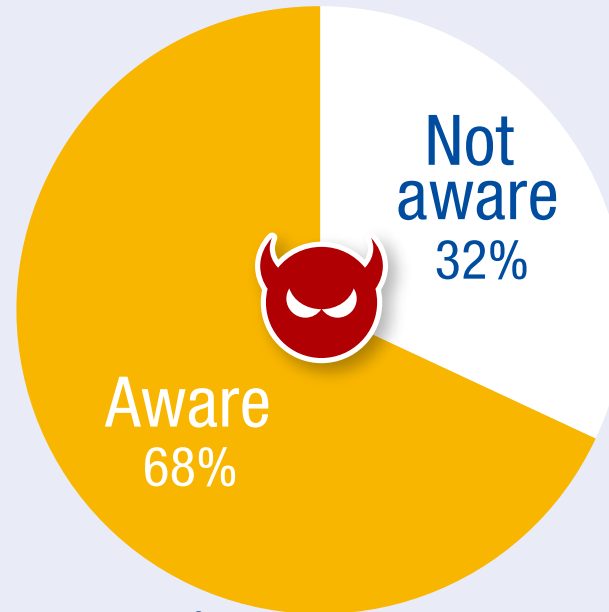
Aware
68%

Demographic insight: Consumers in Europe (77%) score highest on malware awareness, as well as consumers with 5 or more mobile devices (81%). Additionally, a higher percentage of Males (75%) than Females (63%) know about malware.

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[3]   Bryant, P., Furnell, S., & Phippen, A. (2008). Improving protection and security awareness amongst home users. Advances in Networks, Computing and Communications 4, 182.).

2

Mobile protection?
Yes.
Against malware?
Maybe.

A relatively high percentage of respondents say they protect their mobile devices.

Our analysis of the responses to this question revealed that simple security settings such as phone access passwords, lock-screen codes, encryption settings, etc. are considered by users as mobile security measures. However, device security settings will not protect against malware.

Most consumers say they protect their mobile devices

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76%
Protect

24%
Do not protect
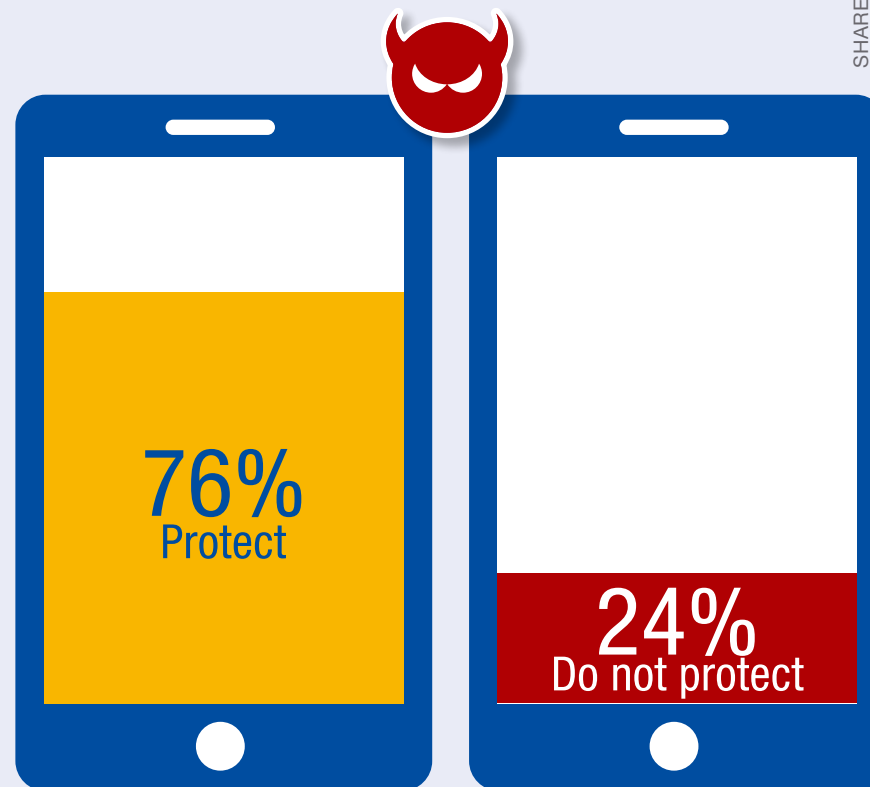
3

Most mobile consumers do not pay for online threat protection

While a majority of consumers know about malware and say they protect their device, only a small percentage (11%) actually pay for protection. The vast majority (89%) who do not pay could be using free security apps or security settings on their device which they perceive as providing sufficient protection.

## Most consumers do not pay for mobile security
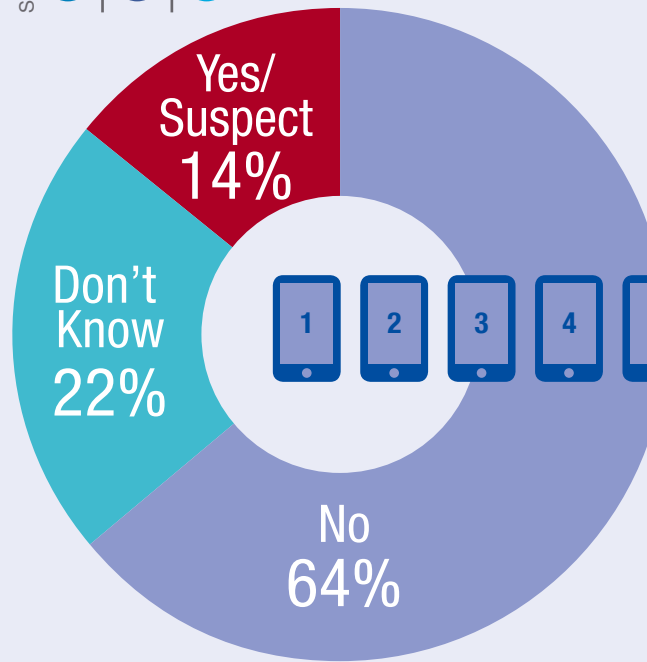
11%
Pay

$

89%
Do not pay
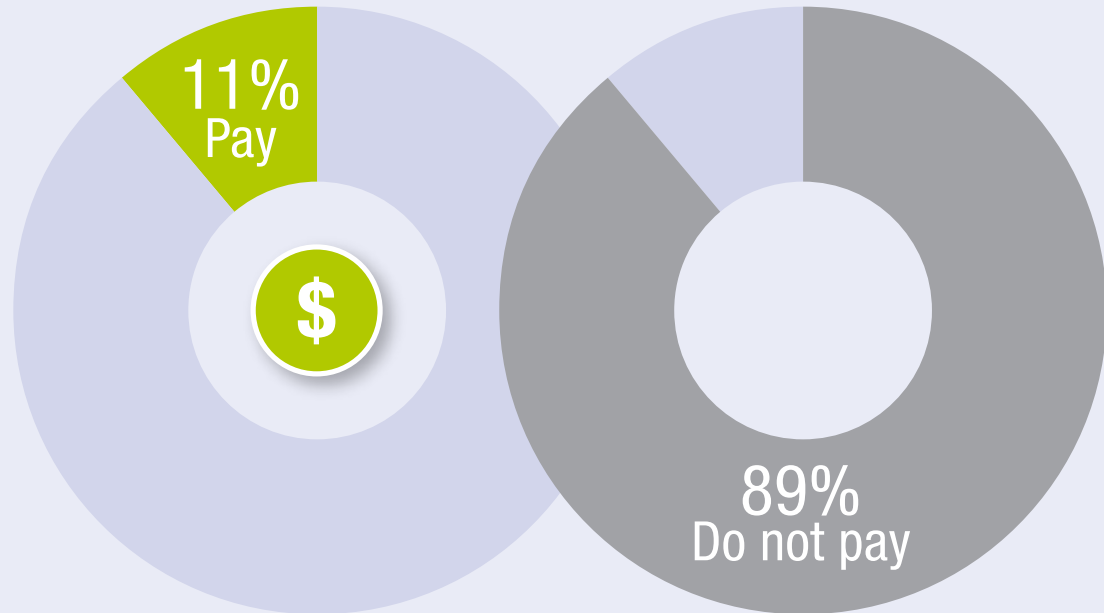
4

Falling victim to malware

14% of malware-aware consumers (10% of all our global respondents) fell victim to a malware attack or suspect that they did during the past 12 months. 64% say they have not experienced a malware attack and 22% don't know.

1 in 7 have fallen victim to mobile malware

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Yes/Suspect 14%

Don't Know 22%

No 64%
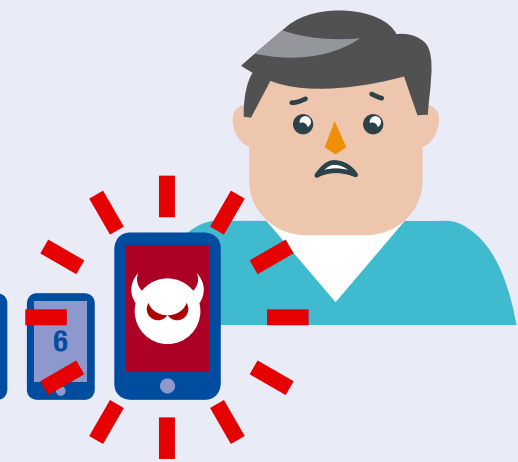
Insight: The 22% who don't know whether they have experienced a malware attack may be among those who have not heard of "malware" or are not sure whether the problems they encountered were caused by malware.

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Does device determine victimization?

In 2016, Android devices had the most vulnerabilities for malware.[4] Due to the reliance on device model, manufacturer, carrier, etc. Android security patches are heavily fragmented among users, which can extend windows of vulnerability to 6 months or more for certain devices.[5]

While Android was more vulnerable to attack in 2016, our survey respondents reported no real difference between devices that have fallen victim to malware in the past 12 months.

Different devices are equally susceptible to malware

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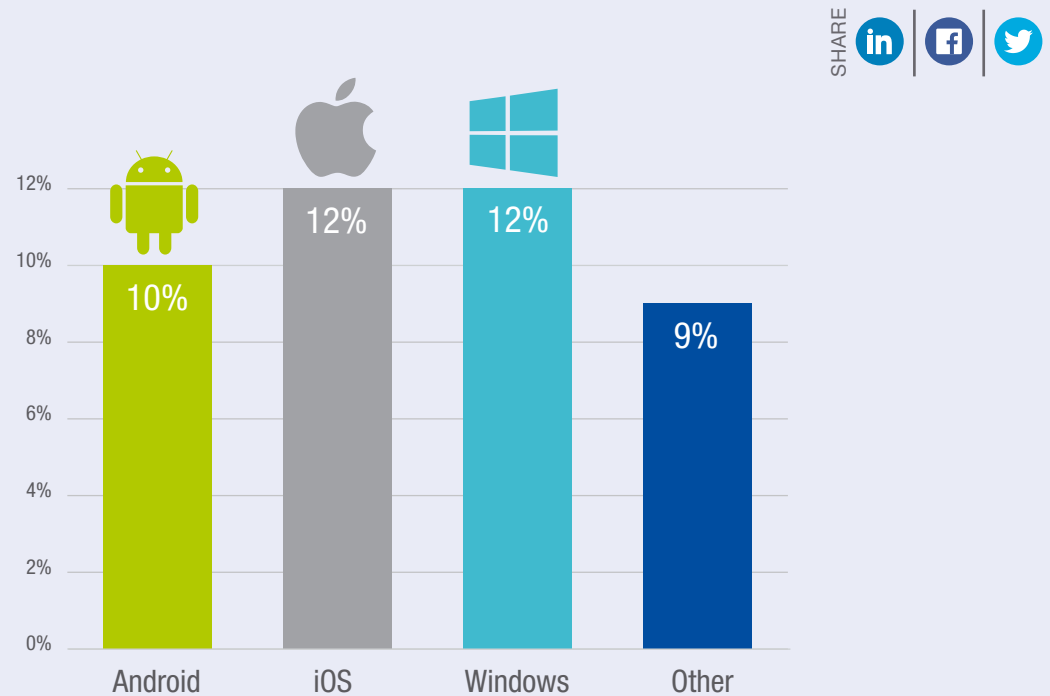
Percentage of respondents who have fallen victim to mobile malware in the past 12 months - by device OS.

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[4] https://www.statista.com/chart/7478/android-is-the-most-vulnerable-operating-system/

[5] https://www.skycure.com/blog/2017-mobile-security-predictions/

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Taking action when under attack

Even consumers who know about malware may not have enough technical knowledge and skills to pinpoint the problem and solve it on their own. When malware victims call for help, 26% contact their security app vendor; 26% contact their service provider; and 13% contact the device vendor who often is also the service provider. The highest percent of victims (35%) contact no one and probably search the Internet for help.

Who do you contact for help with a malware incident?

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	Under 15	15-25	26-59	60+
	26%	24%	26%	30%
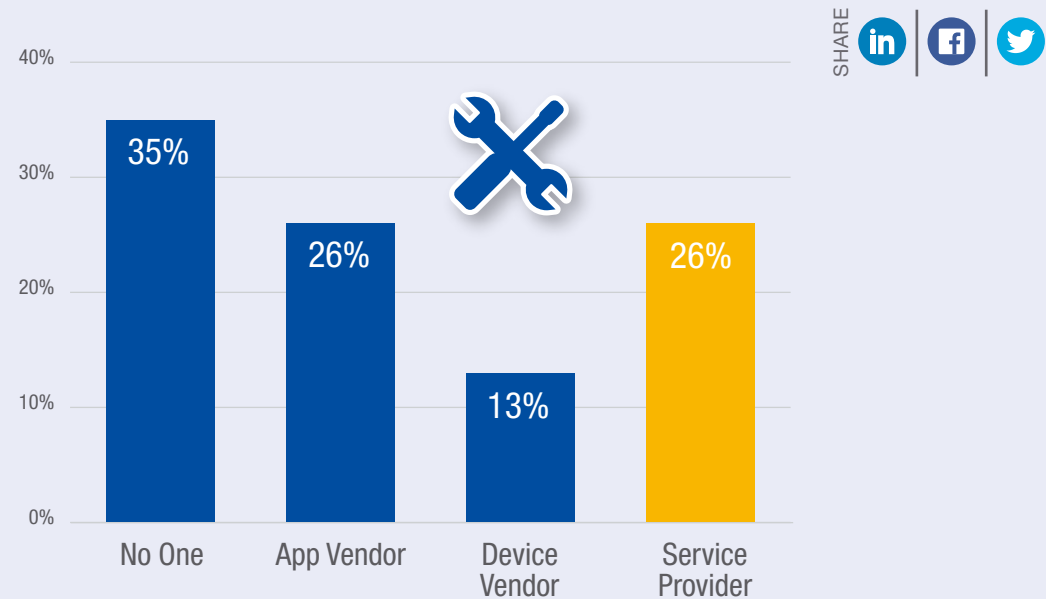
Demographic insight: Correlation analysis shows that on average, 30% of people in the 60+ age bracket and about 25% of all other age groups turn to their service provider for help with malware incidents, indicating significant microsegments for mobile security services.
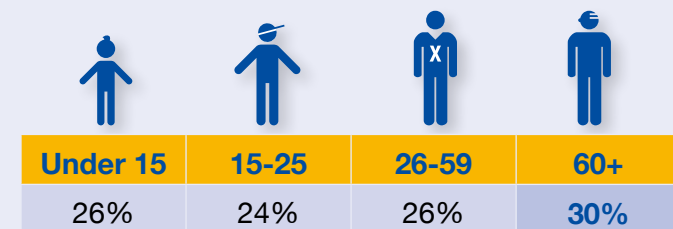
Six out of ten consumers want to buy mobile security services from their CSP

Anti-malware protection at the network level fits all devices; requires no installation, and has no effect on battery resources.

61% of global mobile consumers said they would like to buy mobile security services from their communication service providers (CSP) for all their connected devices. This is especially true for consumers with five or more devices (64%) compared to those with 1-2 devices (53%). This makes sense when we consider that buying personal security services from the CSP saves the consumer the hassle of downloading, configuring and maintaining an app on each device.

Will consumers buy mobile security services from their CSP?

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32%
Yes

29%
Likely
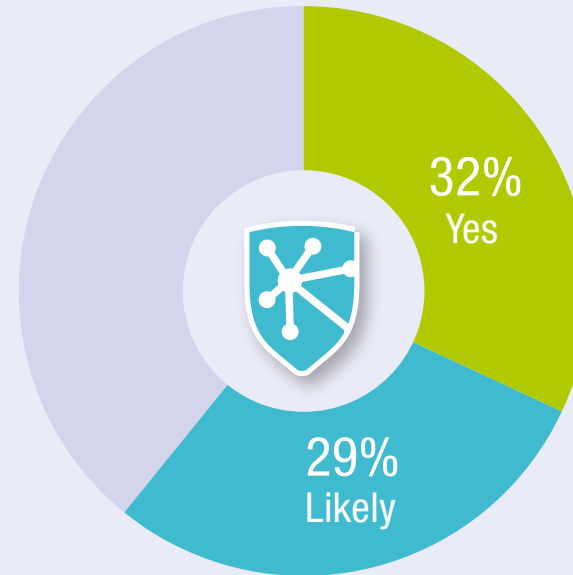
Demographic insight: Consumers in Europe and North America were the highest percentage of respondents who would like to buy mobile security from their Communication Service Provider (CSP).

| Europe	Australia	Asia	North America	LATAM	Africa
67%	60%	60%	**63%**	59%	50%

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Mobile security buyer's gap

While 61% of our global respondents said they would like to buy a mobile security service from their service provider, only 11% currently pay for mobile protection. The large gap between the willingness to pay and the actual number of consumers who do pay could be explained by a number of factors, including availability of security services in CSP offerings, price, complexity to install and/or manage, concerns about privacy or fear of adverse impact on Internet usability.

The gap between demand and fulfillment for mobile security services presents a significant and immediate opportunity for CSPs – especially those who are not yet offering network-based security services. The concept of a simple, accessible and economical service for all devices becomes more attractive as the number of devices per user and household increases.

Demand and fulfillment for CSP mobile security services

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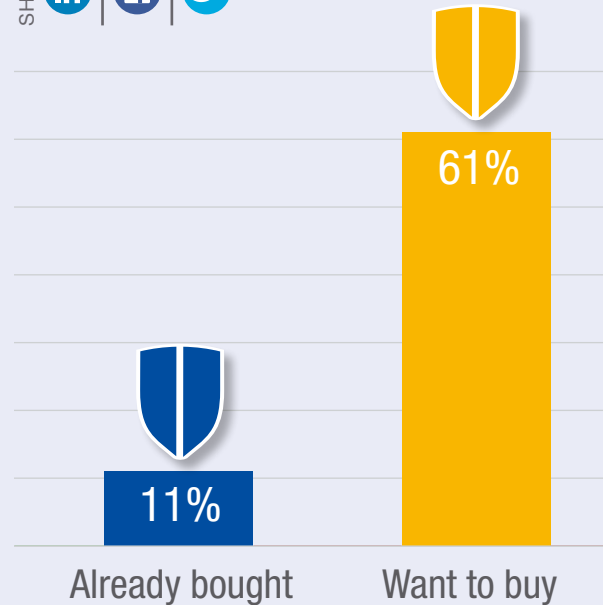
Demographic insight: According to our survey, the gap between demand and fulfillment for CSP mobile security services is highest in Europe and North America. When we consider that these regions have older populations, more disposable income, and the 60+ age bracket turn to their service provider for help with malware incidents more than other ages, these regional differences are borne out. Our findings showed no difference between Android (61%), iOS (59%), and Windows (60%) devices in regard to demand for CSP mobile security services.

	Europe	Australia	Asia	North America	LATAM	Africa
Demand	67%	60%	60%	63%	59%	50%
Fulfillment	15%	13%	11%	11%	8%	5%
Gap	52%	47%	49%	52%	51%	45%

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Big Window of Opportunity

According to these survey results, the majority of mobile consumers say they are:

- **Aware of malware risk**
- **Protect their devices but do not pay for protection**
- **Would like buy mobile security from their service provider**
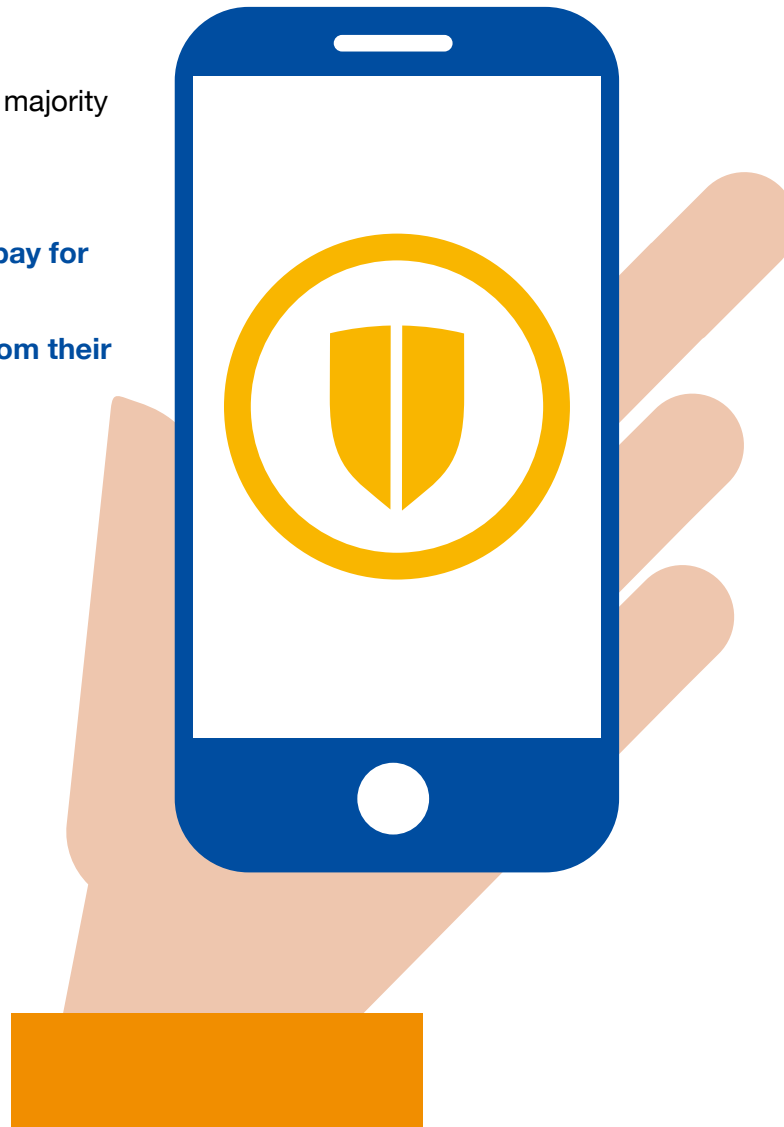
All of these factors combine to create a big window of opportunity. First-mover CSPs who can deliver simple and economical security services that are accessible to all mobile devices will be able to capitalize on the unfulfilled demand of consumers who are ready and willing to buy, but have not yet done so. Our survey results also suggest that even consumers who use free apps would be willing to pay for mobile security services at the network level to protect all their devices from online threats.

The opportunity is clear. But don't take our word for it. Just listen to what consumers are saying.

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H1/2017

About Allot Communications

Allot Communications (NASDAQ, TASE: ALLT) is a leading provider of security and monetization solutions that enable service providers to protect and personalize the digital experience. Allot's flexible and highly scalable service delivery framework leverages the intelligence in data networks, enabling service providers to get closer to their customers, safeguard network assets and users, and accelerate time-to-revenue for value-added services. We employ innovative technology, proven know-how and a collaborative approach to provide the right solution for every network environment. Allot solutions are currently deployed at 5 of the top 10 global mobile operators and in thousands of CSP and enterprise networks worldwide.

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