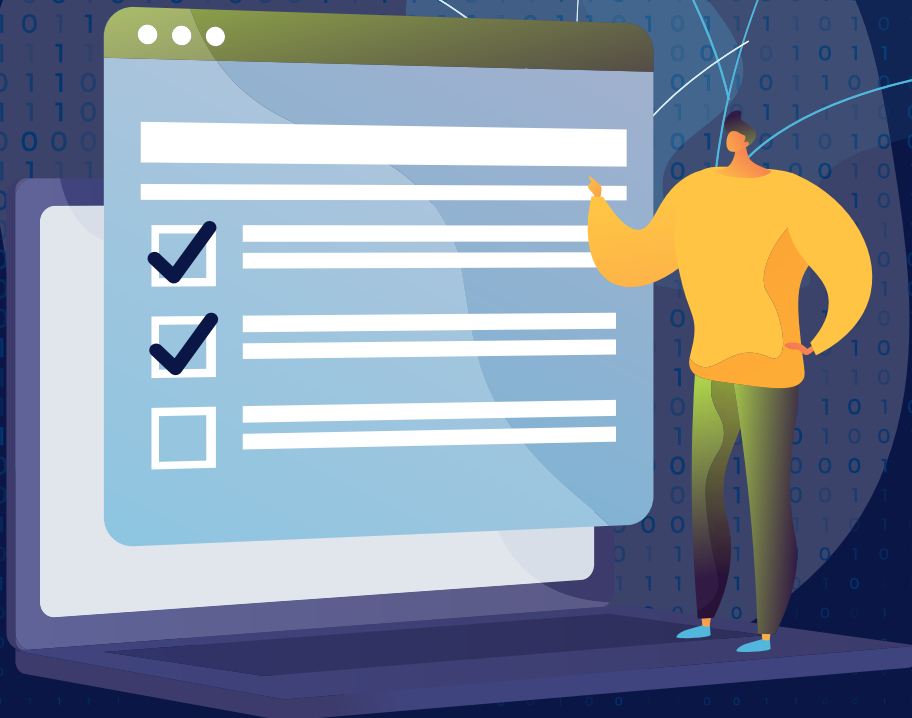




# CYBERSECURITY PERCEPTIONS SURVEY



October 2021

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# Overview

**As 5G connectivity promises to move even more devices and objects (industrial and consumer) online, cybersecurity and privacy issues are becoming increasingly apparent to the general public.**

In the media, these issues are often presented in relation to online service providers, tech giants or cybersecurity companies, failing to ask some prudent questions:

**What does the public think about cybersecurity?**

**What number of people have already been impacted by cybercrime?**

**What private information people value the most?**

**Who do they feel is responsible for security online?**

**What actions, if any, do they take to protect their home networks and personal devices?**

These questions are becoming more and more relevant as millions of people have their data or services targeted by hacks, ransomware and malware. There is a need to know who people feel is responsible for protecting them and their loved ones, how aware of their own responsibilities people are, and whether they take action to protect themselves online.

This survey examines these topics across four countries - the United States, France, Germany, and Italy - to uncover the public perceptions of these important cybersecurity concerns and key differences in national attitudes toward some issues.

## Survey Design



CUJO AI has surveyed over **4,000** people in four countries: the United States, France, Germany, and Italy. The answers were collected and analyzed in October 2021.



The survey was conducted in the local languages, and the questionnaire was designed to examine cybersecurity and privacy perceptions of the general adult population.



The questionnaire consisted of a set of questions including multiple-answer and single-answer questions, with the option to add unique personal answers to most questions. Single-answer questions were used to identify the most pressing cybersecurity perceptions, while multiple-answer questions allowed the respondents to express a wider range of experiences and opinions.



## Demography

All four surveys conducted for this study are representative of the general adult Internet user populations of the surveyed countries and had a balanced distribution of respondents by age, sex and location.



# Internet Use

People in the US claim to use smart devices at home almost two times more than Europeans. Respondents in Italy report the lowest use of smart devices (see Table 1).

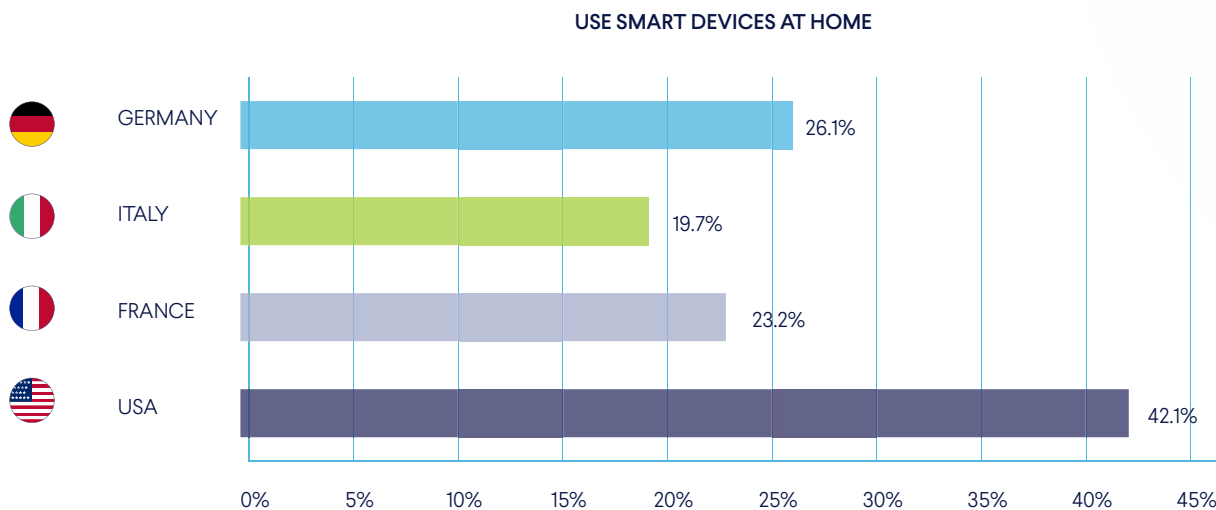


Table 1: Percentage of respondents who said they used smart devices at home

Parenting in the digital age is a difficult task. A study by the [Pew Research Center](#) revealed that two-thirds of parents said their parental duties were harder due to smartphones and online access. Our data shows that a similar number of households in the surveyed countries (18%–21%) said they had children using the Internet, making parental controls a pressing question for a significant number of Internet users (Table 2).

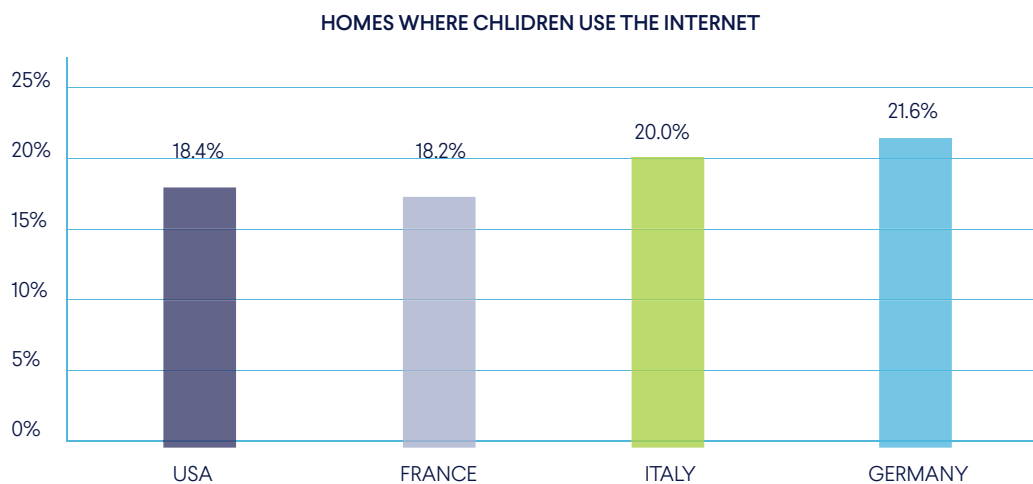


Table 2: Percentage of respondents who said they had children at home using the internet

Online gaming was most popular among Italians (17.8%), more than in France, where online gaming was the least popular (11.3%). Overall, 1 in 8 households said they use their Internet connection for online games (Table 3).

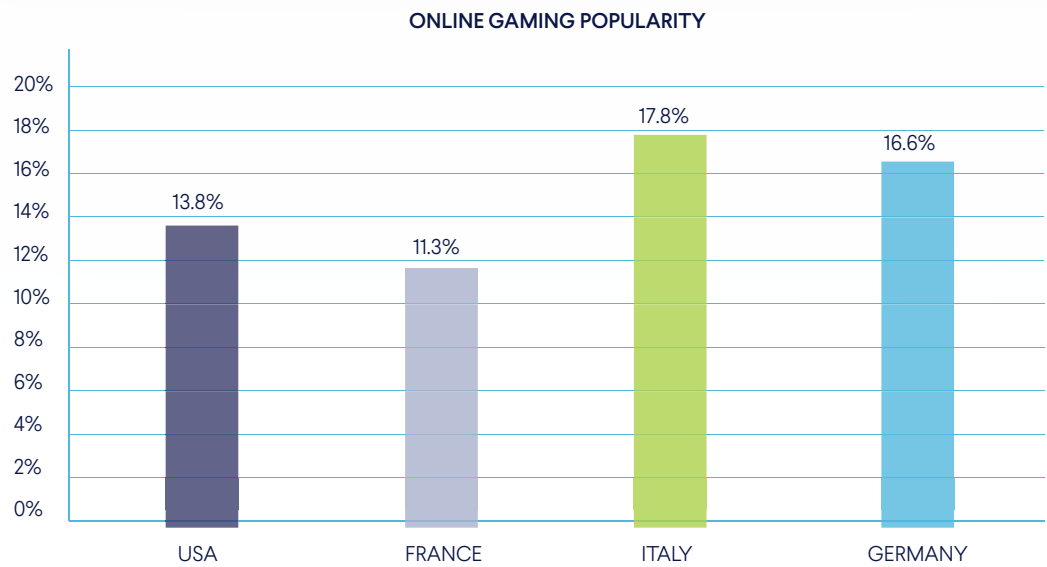


Table 3: Percentage of respondents who said they used their internet for online gaming



# Encountering Cybercrime

Overall, close to **3** in 10 people said that they had been a victim of cybercrime or knew someone who has been a victim of cybercrime. This number is highest in the US (31.9%) and Italy (29.9%). Germans reported the fewest encounters with cybercrime (21.1%).

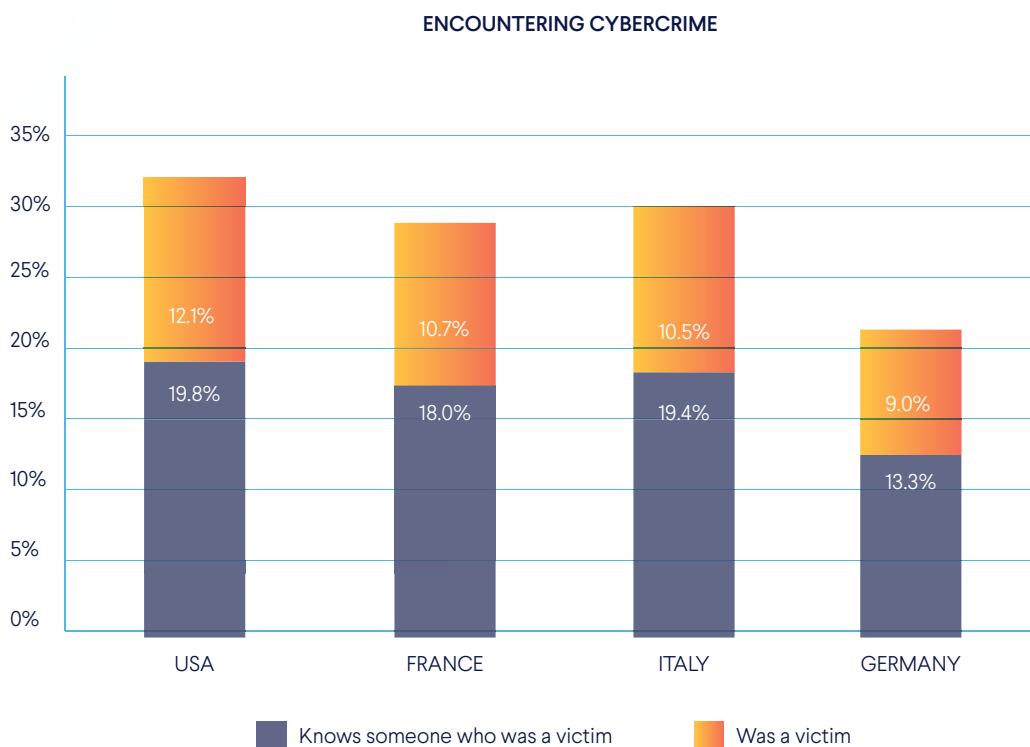


Table 4: How many respondents encountered cybercrime: were victims or knew someone who was a victim

Respondents from the US also claim to be victimized the most (12.1%), almost 36% more than respondents from Germany (8.9%).



# Difficulty Protecting Home Networks

The respondents from the US were the most confident in their ability to protect their home networks: 52% said they found it not challenging at all (33%) or slightly challenging (19%). In Europe, confidence was lower, especially in France, where only 17.1% said they found it not challenging at all (Tables 5 and 6).

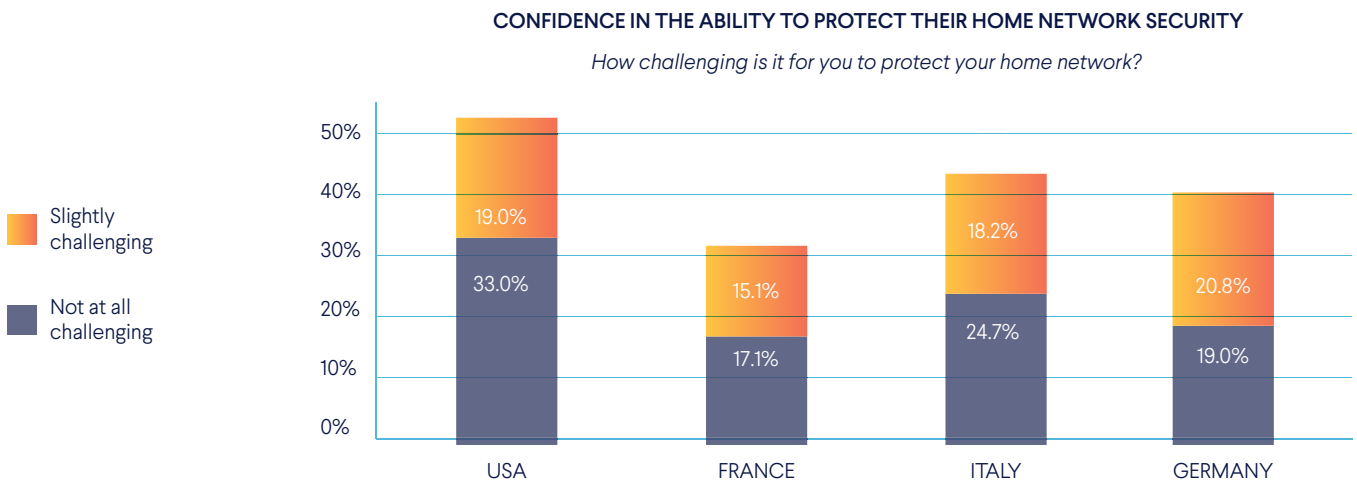


Table 5: The proportion of respondents who are confident in their ability to protect their home network

In all European countries, over 30% of respondents felt that protecting their home networks was either very challenging or extremely challenging.

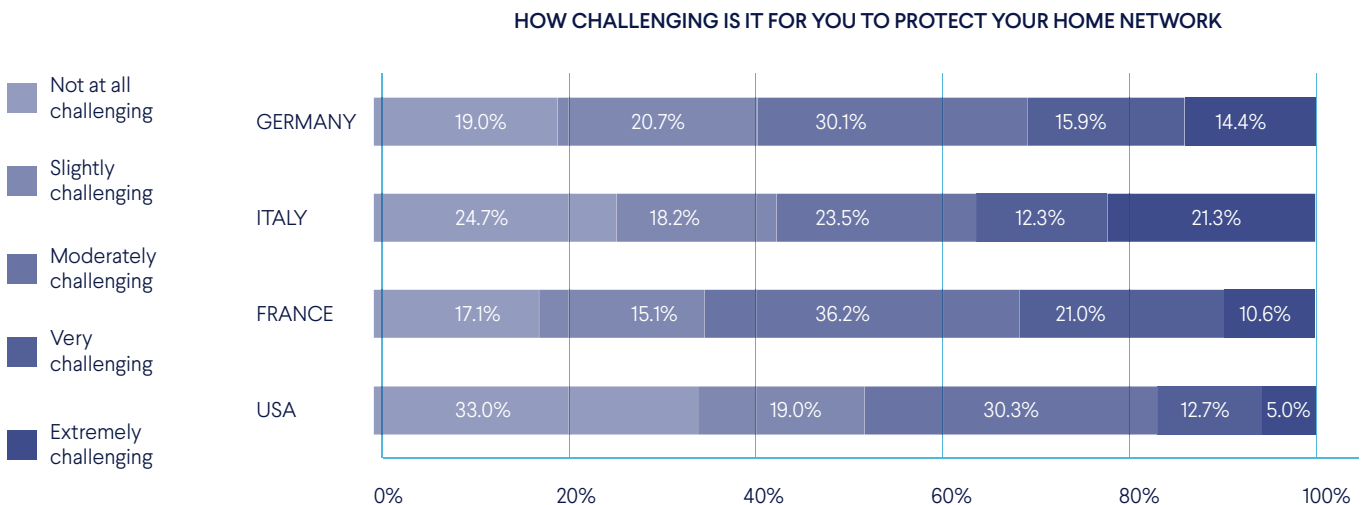


Table 6: Overall confidence in respondents' ability to protect their home networks by country



## Protecting Personal Devices

Most alarmingly, a significant number of people (21%–36%) in all surveyed countries were unaware they needed to take action to protect their home network and personal devices (Table 7).

Fifteen to eighteen percent of people hadn't taken any steps to protect their network or devices but were aware they needed to do something. In total, around half of Internet users in these countries have not taken any measures to protect their networks or devices (Table 7).

CONSUMERS THAT HAVEN'T DONE ANYTHING TO IMPROVE THEIR HOME NETWORK AND DEVICE SECURITY

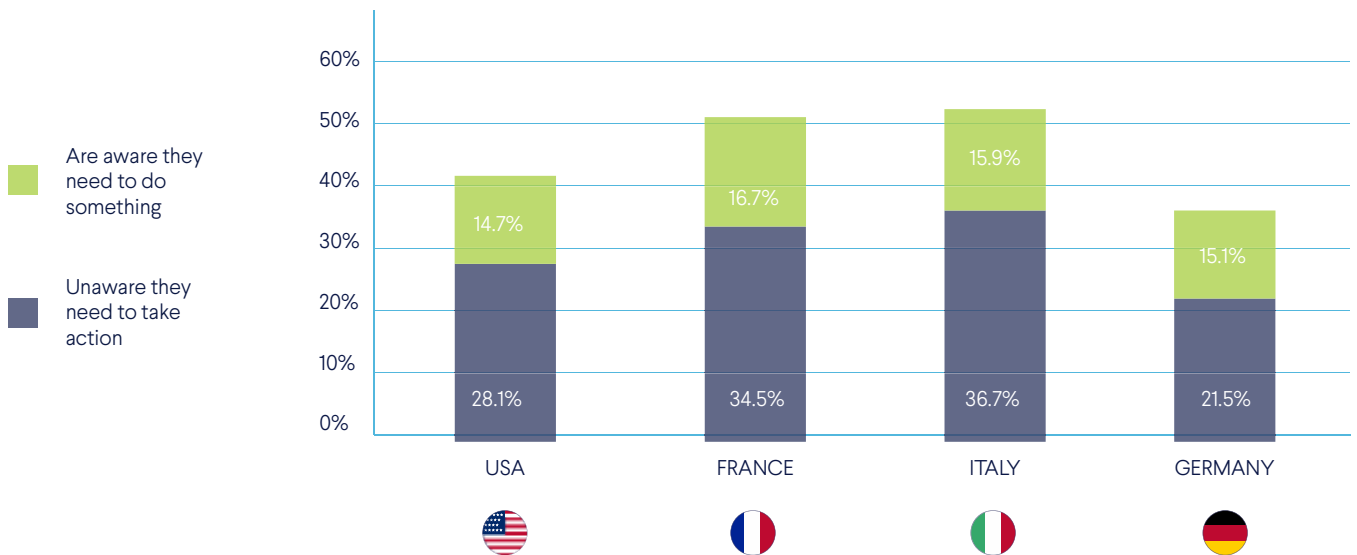


Table 7: Large parts of all surveyed populations claimed they took no action to protect their home networks and devices; the majority were unaware they needed to take action



Of the people who have taken action to secure their home networks and devices (Table 8), most had installed security software on their devices or subscribed to a security service from their Internet Service Provider (ISP). Germans had by far the highest use of security software among the surveyed countries. In the US, significantly more Internet users have subscribed to ISP security services.

**MOST POPULAR ACTION TAKEN TO PROTECT HOME NETWORKS AND DEVICES**

*In the past 12 months, what have you done to protect your home network and personal devices?*

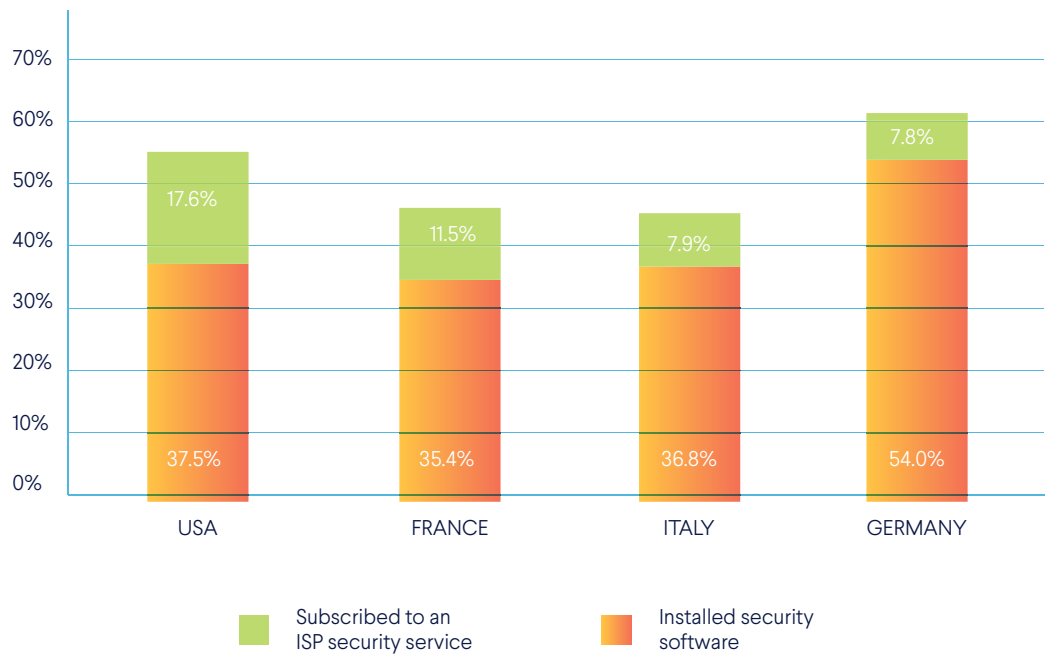


Table 8: Most popular security measures taken to protect home networks and devices

# Cybersecurity Concerns

Security on the Internet concerns over **3** in 10 people across all surveyed countries (Table 9). These people are either very or extremely concerned about security on the Internet. A similar percentage of respondents were either not concerned at all or slightly concerned only. Italy and the US have the highest number of unconcerned people, who said they were not concerned at all, 24% and 25.2%, respectively.

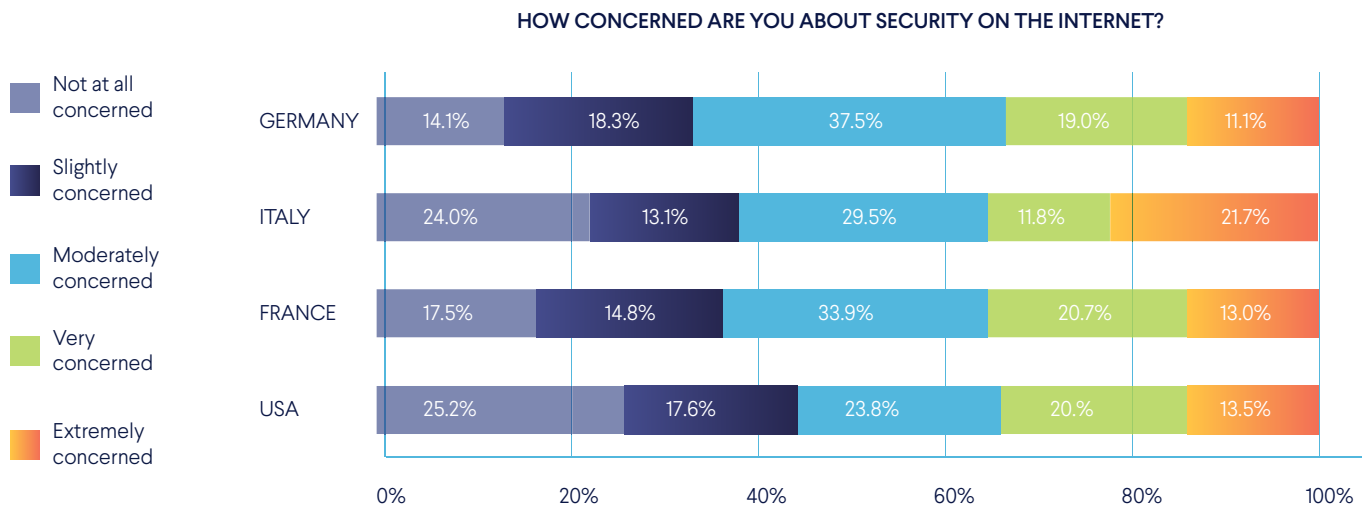


Table 9: Concerns about security on the Internet in the surveyed countries



## Attributing Responsibility for Cybersecurity

When asked who should be responsible for preventing cybercrime and attacks (Table 10), **more than half of the respondents** said that Network and Internet Service Providers were the most responsible for cybersecurity—more than the government, law enforcement authorities or even the users themselves. This opinion was strongest in France, where 59.6% of respondents said they felt that ISPs were responsible. In Italy, 36.3% said that ISPs were responsible, with the government a close second at 36.1%.

People in the US felt a lot more personal responsibility for their cybersecurity, with 44% stating that they themselves were responsible, while only 16%–18% of Europeans felt this way.

WHO IS RESPONSIBLE FOR PREVENTING CYBERCRIME AND CYBERATTACKS?

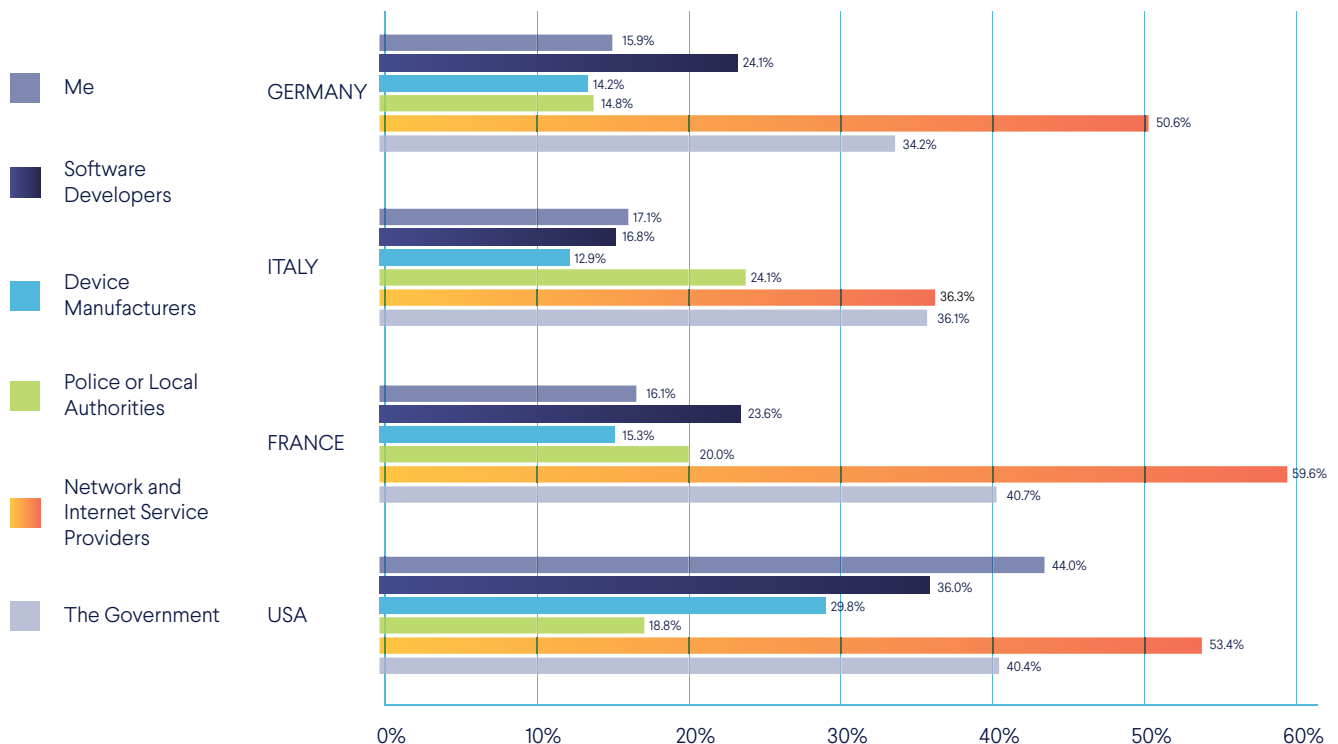


Table 10: Perceived responsibility for preventing cybercrime and cyberattacks; the respondents could indicate multiple parties they felt were responsible

On average, respondents in the US felt there were 2.23 parties responsible for cybersecurity, notably higher than in the other three countries: 1.78 (France), 1.44 (Italy) and 1.55 (Germany). This shows that Europeans attribute a relatively larger responsibility to ISPs than Americans.

# Willingness to Upgrade Internet Plans or Change Providers for Better Security

German respondents were the most willing to upgrade their Internet subscriptions to a more secure package: over 68.1% said they would upgrade, and 17.1% indicated that they would be willing to pay more for the added security (Table 11).

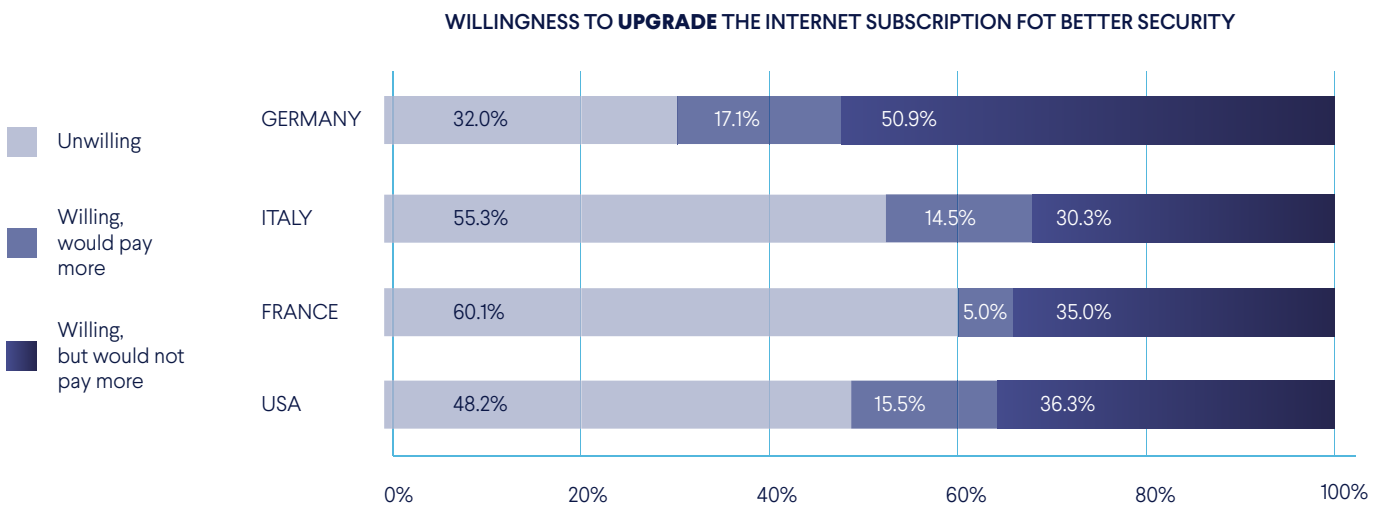


Table 11: Willingness to upgrade Internet subscription for better security



WILLINGNESS TO SWITCH INTERNET SUBSCRIPTION FOR BETTER SECURITY

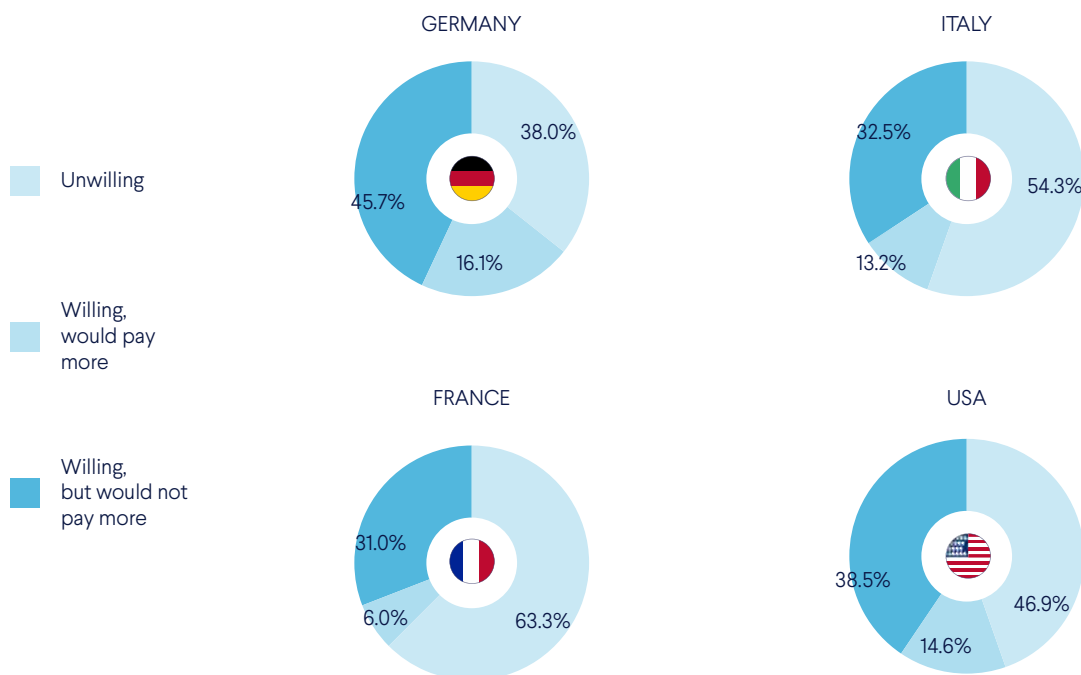


Table 12: Willingness to switch the Internet service provider for better security

When asked if they would change their Internet Service Provider if a competitor offered them a more secure plan, a similar percentage of people said they would be willing to switch providers (Table 12).

The people willing to either upgrade their subscriptions or change their ISP said they were more likely to do so **if they feel that ISPs are responsible for their security.**

# Privacy Concerns



The majority of people (98%–99%) in the surveyed countries expressed concerns about privacy threats. When asked to choose the most concerning threat to their privacy, most people in the US (53.3%), France (47.2%) and Germany (40%) said they were worried about financial harm due to identity theft. Italians were more concerned by the unauthorized use of their personal data (45%) than identity theft (32.6%). See Table 13 for more data.

WHAT PRIVACY THREATS CONCERN YOU THE MOST?

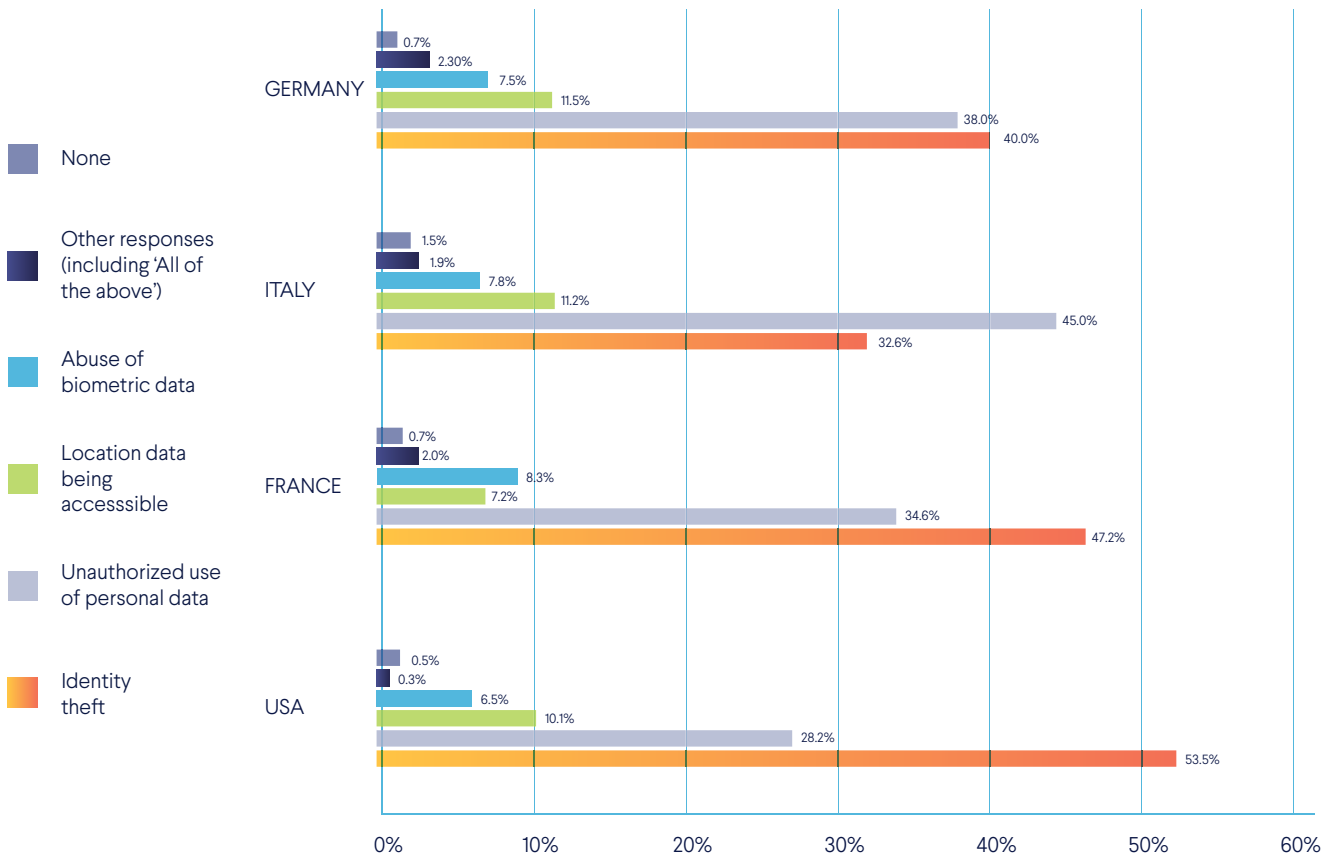


Table 13: What privacy concerns worry people the most

Abuse of biometric and location data were not seen as the most important in the context of the forementioned threats, as only 15%–19% of people said that they were concerned the most with either of these two threats.

## Conclusion

The annual cybersecurity perceptions survey has revealed some interesting trends about the way consumers view online security and how their perceptions views vary in different countries.

This was the first year when European countries were included in the Survey, and it will be interesting to examine how their differences and similarities change in the future.

**Identity theft and unauthorized use of personal data are key concerns for consumers** in all surveyed countries—a clear indication of the public’s reaction to the current privacy issues online.

Europeans reported lower usage of smart devices and had lower confidence in protecting their home networks than people in the US. The survey shows that overconfidence in the ability to protect one’s home network might lead to inaction, especially when we consider that an **alarming number of people are unaware they need to take their network and device security seriously.**

Overall, Americans attributed responsibility for cybercrime prevention to more parties than people in Europe, even though percentage-wise **all four surveyed countries reported that Internet Service Providers were the most responsible party for their security.** Americans felt more personal responsibility for their security and believed that software developers were responsible for cybersecurity more often than Europeans.

When it comes to attributing responsibility, consumers strongly indicate that they see Network and Internet Service Providers as the most responsible parties in protecting them from cybercrime and cyberattacks. **Responsibility attribution creates both reputational risks and business opportunities for Internet Service Providers.**

**The Annual Cybersecurity Perceptions Survey** is conducted by CUJO AI, the leading cybersecurity and data intelligence solution provider for large network service providers. The survey focuses on consumer perceptions of threats and solutions relating to privacy and security online. All previous surveys can be accessed for free on the company’s website at <https://cujo.com/resources/>.





CUJO AI provides advanced multilayered cybersecurity as a product for Internet Service Providers, which allows them to protect end users' devices and home networks.

Major mobile and broadband providers partner with CUJO AI to offer security as a value-added service to their clients. Thanks to a unified approach that encompasses AI algorithms and an unmatched scale of its database, the company's products have a proven positive impact on their client revenue streams and customer retention.

As the only comparative platform deployed to monitor over 1 billion devices, CUJO AI offers the most advanced AI algorithms to help its clients uncover previously unavailable insights about devices on their networks. Data processed by these algorithms is in full compliance with all privacy regulations.

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