IT Security Survey 2013

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www.av-comparatives.org

Overview

Use of the Internet for business and private communication, public services and entertainment continues to grow rapidly. Along with the increased benefits come increased risks from cybercriminals. Our annual survey of computer users worldwide gives us an insight into their understanding of computer security issues, requirements in security software, and which institutes they trust to provide reliable information on security issues.

Survey Methodology

The answers given here are based on an Internet survey run by AV-Comparatives between 20th December 2012 and 20th January 2013. A total of 4,715 computer users from around the world anonymously answered the questions on the subject of computers and security. Answers from respondents who work in the antivirus industry were filtered out. The survey contained control questions that allowed invalid answers, and respondents attempting to unfairly influence the result, to be recognised and removed from the results.

Where significant and interesting differences were observed among different groups (e.g. based on country, source/user type etc.), these are noted in the comments.

Key results

- Users are aware of the dangers in the Internet and most of them are already using a security solution. Still about 3% of all users do not use a security product to protect their computers (even if some of these use less vulnerable operating systems such as Linux or Apple Mac OSX).
- Most users do not attempt to contact the security software manufacturer in the event of false alarms or false negatives (missed malware).
- Clearly, the great majority of users are interested in on-demand malware file detection rate tests, followed by the Whole-Product Dynamic "Real-World" Protection Test, as well as proactive/retrospective tests that evaluate heuristics and behaviour-blocking capabilities etc. when offline. AV-Comparatives will continue to evaluate the quality of features provided in products – if a product e.g. did not include a file detection capability (i.e. on-access/on-demand feature), we would not test that product for it.
- Over half of the survey participants found both performance testing and malware removal to be valuable.

Modern operating systems

Four out of 5 respondents now run Windows 7 or 8, which are more secure than the older but still relatively popular Windows XP.

Growing trust in free antivirus programs

Just over half of respondents employ a paid-for security solution, compared with two-thirds last year. Correspondingly, use of free programs has risen to over two-fifths. This suggests that users may be growing more satisfied with the range and quality of free security programs.

Detection, cleaning and performance valued highly

The three most important qualities of a security program (all rated by approx. 60% of respondents as important) are good detection rates, good malware removal capabilities, and low impact on system performance. Proactive protection (without the cloud) and protection against online threats were also seen as important by approx. half of respondents. Using a product from a well-known vendor was least important, with only approx. 5% of users rating this as important in our survey. This suggests users with a high level of technical understanding, who trust independent testing rather than brand names.

Alternative browsers ever more popular

Last year, over a quarter of respondents used Microsoft's Internet Explorer browser, the Windows default. This year, less than 15% used Internet Explorer, with Chrome and Firefox together accounting for 75% of browser usage.

Performance important

Although nearly three quarters of respondents rated effective protection more highly than low impact on system performance, the most popular request for improvement in antivirus software was improved performance, with over two thirds of respondents choosing it.

Conclusions

Computer users who responded to this year's survey show an even greater understanding of technical and security issues, with a large majority using modern operating systems and alternative browsers. Additionally, respondents trust independent test results more than brand names, and have increasing confidence in tried and tested free software.

We are grateful to everyone who completed the survey, and for respondent's trust in AV-Comparatives. The feedback we have gained will be used to ensure that our tests are as effective and relevant as possible; this helps manufacturers to further improve their products, benefitting both themselves and their users.

All AV-Comparatives' public test results are available to everyone for free at www.av-comparatives.org

Security Survey 2013

To improve our service we ran a survey and asked users for their opinions on various topics related to anti-virus software testing and anti-virus software in general. The results are very helpful to us, and we would like to thank everyone who took the time to complete the survey.
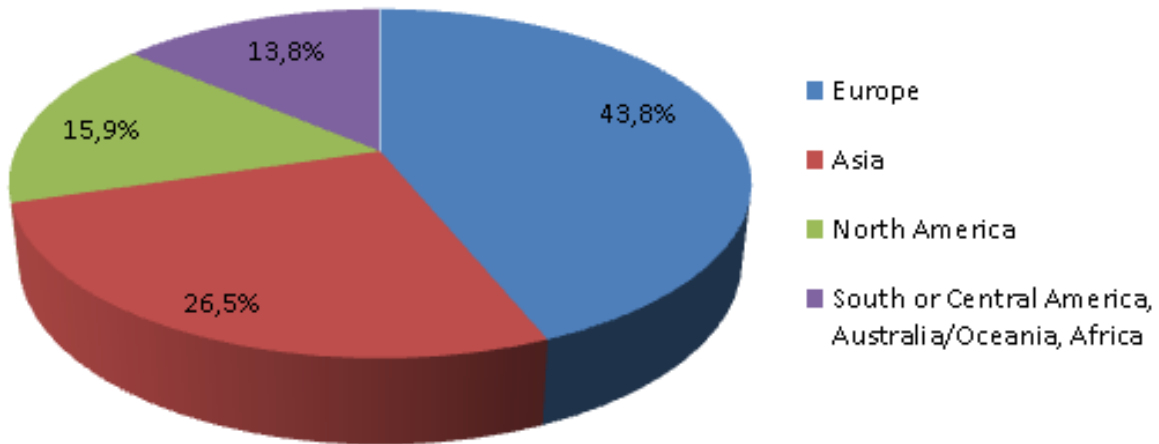
Key data

Survey Period: **20th December 2012 - 20th January 2013**

Valid responses of real users: **4715**

The survey contained some control questions and checks to allow us to filter out invalid responses and users who tried to distort the results by e.g. giving impossible/conflicting answers. As we were primarily interested in the opinions of everyday users, the survey results in this public report do not take into account the responses of participants who are involved with anti-virus companies.
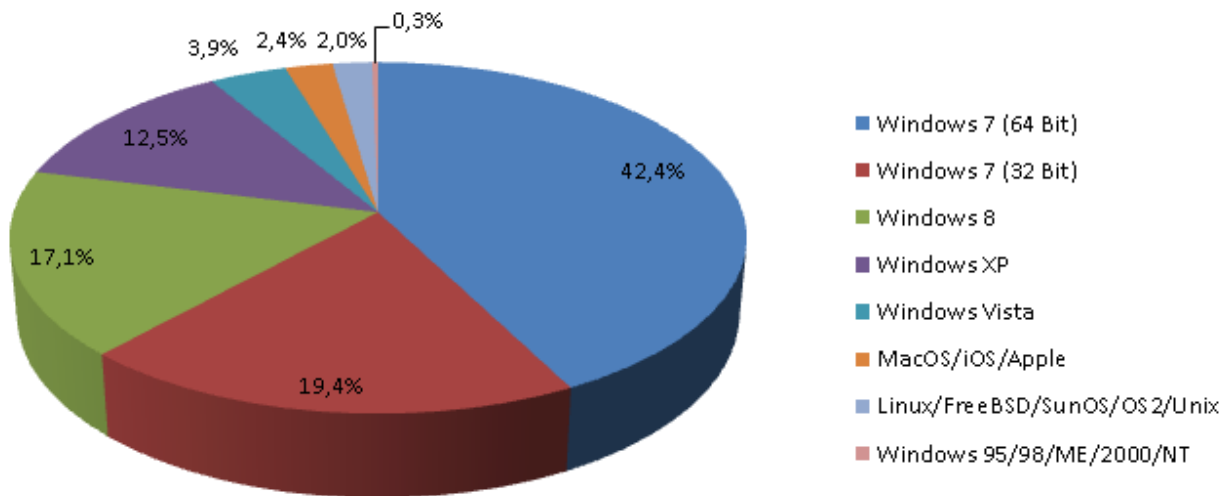
The results of the survey are very valuable to us; you will find in this report the results of some of the survey questions, which we would like to share with you.

1. Where are you from?

Getting on for half our survey respondents were from Europe, just over a quarter from Asia, and approx. 16% from North America.

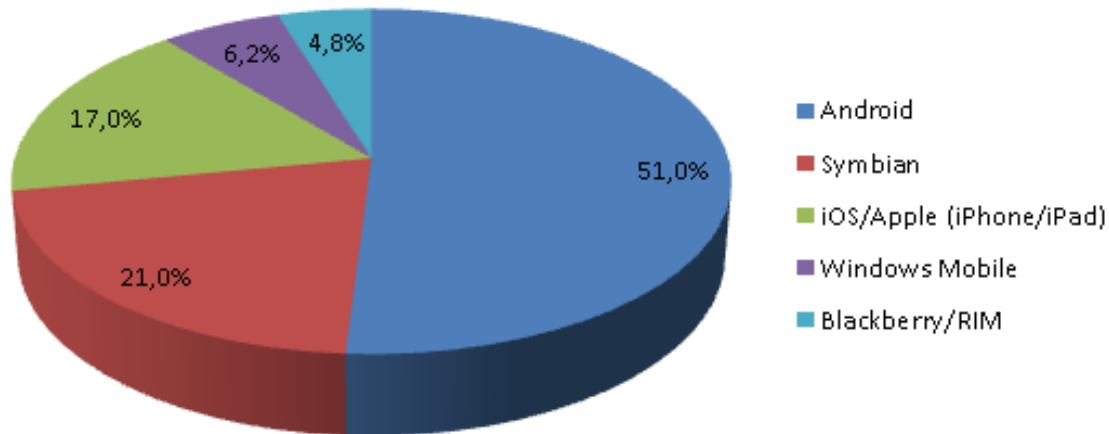## 2. Which operating system do you primarily use?

61.8% use Windows 7 (either 32 or 64-bit). 78.9% use Windows 7 or higher. We note that the use of Windows 8 by our respondents (17.1%) is significantly higher than by the general public (according to various metric companies).

In Asia, 32-bit Windows 7 is almost as popular as the 64-bit version (29.7% vs. 35.2%), whereas in North America, the 32-bit architecture has less than a quarter of the popularity of the x64 variant (11.0% vs 47.5%).
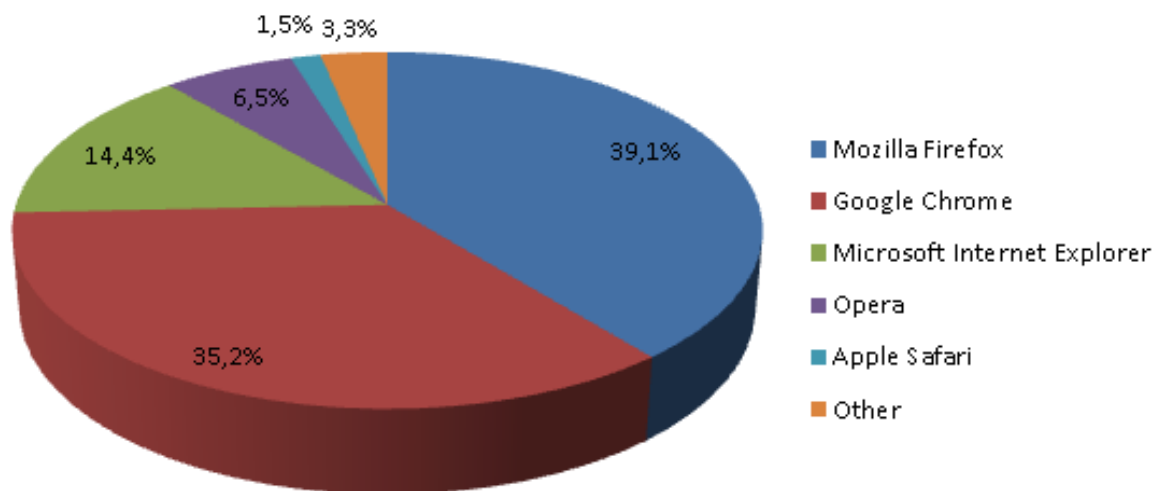
In North America, Apple operating systems are particularly popular (7.2%).

3. Which mobile operating system do you use?

80.3% of survey respondents have a mobile phone. Of these, 51% use Android. Symbian takes second place with 21%, followed by iOS/Apple with 17%. Android's dominant position means that it will remain the biggest target for malware writers.
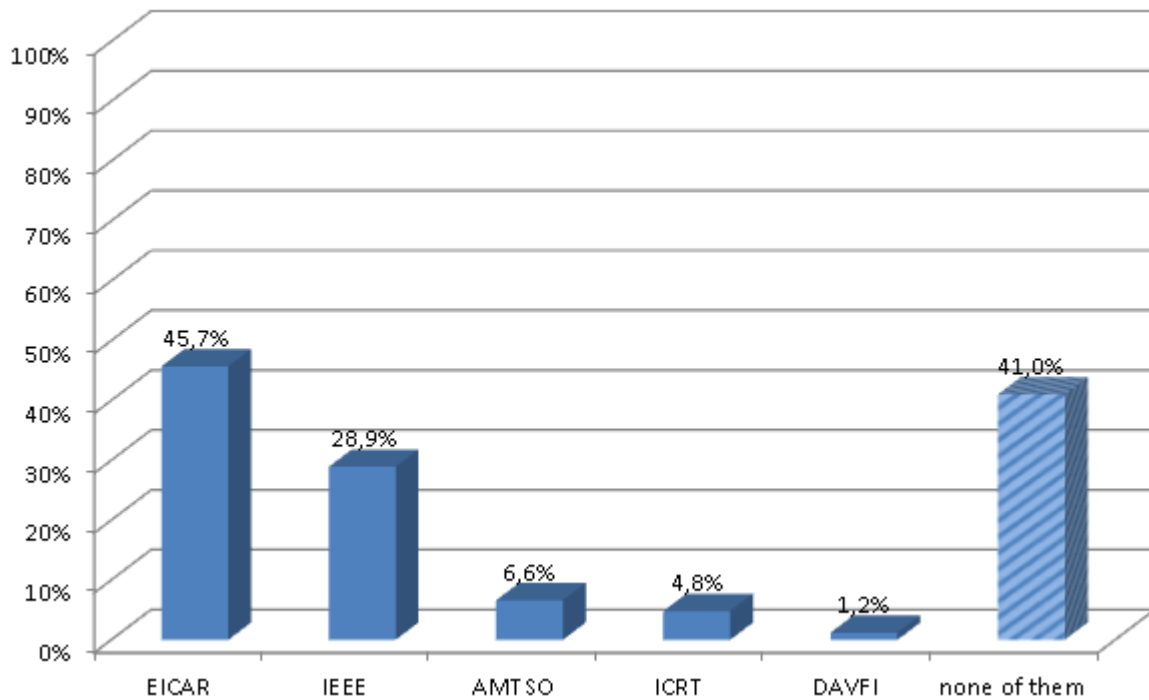
4. Which browser do you primarily use?

Almost two fifths of the users who took part in our survey use Mozilla Firefox to browse the web, with Chrome not far behind. Internet Explorer is the third most popular browser overall.

In Asia and South/Central America, Google Chrome prevails (41.2%/50.5% vs. 35.4%/26.1% for Mozilla Firefox).

5. Which of those acronyms are known to you?

EICAR is the best-known overall, and especially in Europe (47.7%) and North America (46%). This may be because EICAR has created a test file that can be used to check basic functionality of antivirus programs.

IEEE is best known in North America (52%).

The rest of the acronyms were not well known by the survey participants.

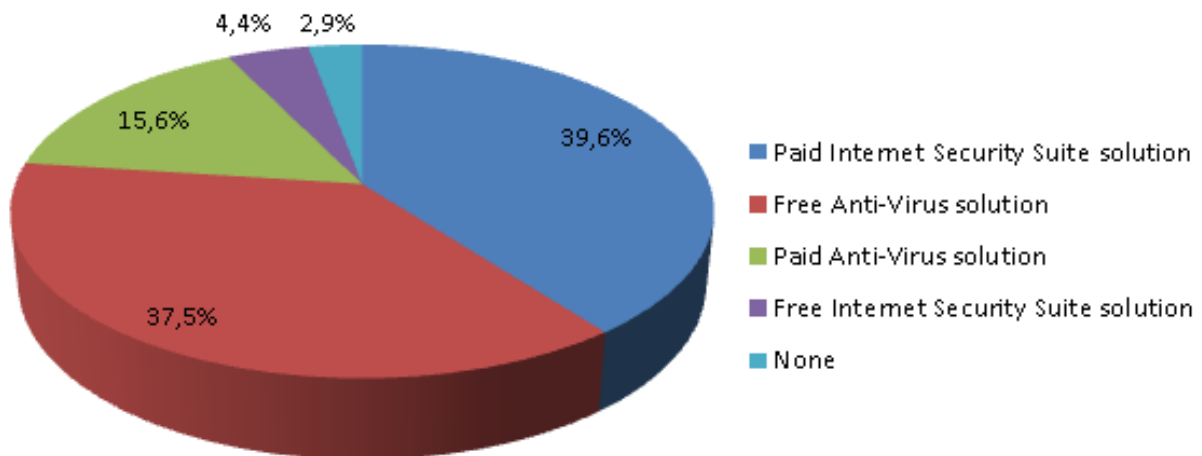EICAR = European Institute for Computer Antivirus Research

IEEE = Institute of Electrical and Electronics Engineers

AMTSO = Anti-Malware Testing Standards Organization

ICRT = International Consumer Research & Testing

DAVFI = Démonstrateurs d'AntiVirus Français et Internationaux

6. Which type of security solution are you currently primarily using?

Worldwide, 55.2% of users pay for a security solution. 53.1% use an antivirus program rather than an Internet security suite.

In North America, the most popular solution (39.9%) is a free antivirus program (mainly Microsoft Security Essentials). This may explain aggressive marketing by some major antivirus vendors, and claims that free programs are inadequate.

In Europe (41.2%) and Asia (43.8%) a paid Internet Security suite is the most popular solution.

In South/Central America, free solutions are used by a majority (58.3%).

7. Which anti-malware security solution are you currently using?

The 12 most commonly used manufacturers of the products in the world are (in this order): Avast, Kaspersky, AVIRA, ESET, Microsoft, Symantec, Bitdefender, AVG, F-Secure, McAfee, Trend Micro and Panda.

The list below shows the Top 12 manufacturers of the products most commonly used by survey participants, in order of popularity:

Europe	North America	Asia	South/Central America
1. Avast	1. Microsoft	1. Kaspersky	1. Avast
2. Kaspersky	2. Symantec	2. Avast	2. AVIRA
3. ESET	3. Avast	3. ESET	3. Microsoft
4. AVIRA	4. Kaspersky	4. AVIRA	4. Kaspersky
5. Symantec	5. AVIRA	5. Bitdefender	5. ESET
6. Microsoft	6. Bitdefender	6. Microsoft	6. Bitdefender
7. Bitdefender	7. ESET	7. Symantec	7. AVG
8. AVG	8. AVG	8. AVG	8. Trend Micro
9. F-Secure	9. McAfee	9. McAfee	9. Symantec
10. GDATA	10. Panda	10. F-Secure	10. Panda
11. McAfee	11. F-Secure	11. Trend Micro	11. F-Secure
12. Trend Micro	12. Trend Micro	12. Panda	12. McAfee

In both Europe and Asia, the top three products are Avast, Kaspersky and ESET, with Avast being top in Europe and Kaspersky most popular in Asia.

In North America, users mainly run Microsoft and Symantec, with Avast in third place.

In South/Central America, Avast, AVIRA and Microsoft are most popular.

Please note that Australia/Oceania and Africa are not shown, as there were not enough responses to produce a significant result.

Other studies (based on completely different data collection approach) reach partially similar results, see http://www.opswat.com/about/media/reports/antivirus-december-2012

8. Which security solutions would you like to see in our yearly public main-test series?

Below are the 15 top requested products (with over 50% of users voting for them, products with less than 50% are not listed). Users had to choose 15-20 products.

1. Avast
2. Kaspersky
3. Bitdefender
4. AVG
5. AVIRA
6. Symantec
7. Microsoft
8. ESET
9. F-Secure
10. Trend Micro
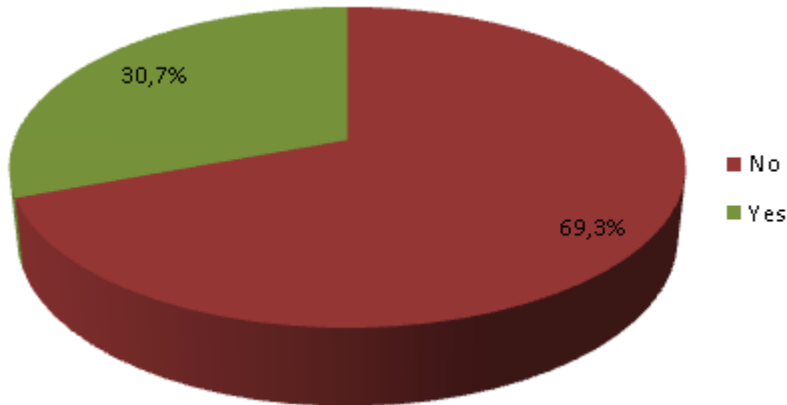11. McAfee
12. Panda
13. G DATA
14. BullGuard
15. Sophos

All the products above (except Symantec/Norton)[1] were tested last year. This year our test series will also include some new products which were requested in last year's survey, and whose vendors have agreed to participate: **Emsisoft** and **Kingsoft**

Further vendors included in this year's tests: **AhnLab, eScan, Fortinet, GFI Vipre, Qihoo, Tencent**.

Although we had intended to limit the number of public participants to 20 at most, the high demand for places in our test series means that we have agreed to test products from 22 vendors altogether.
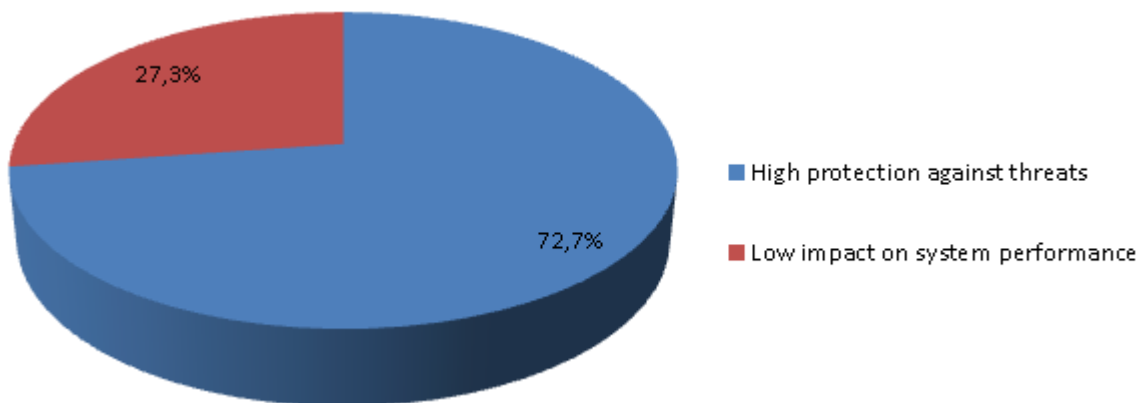
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[1] Symantec only wanted to take part in our public tests if they could choose which of the tests from our yearly public test-series they participated in. As an independent testing organization, we require all vendors to take part in all the basic tests in the series, and do not allow them to cherry-pick tests. Consequently, Symantec has decided not to submit its product for our public main test-series in 2013. We may test Symantec in some tests anyway.

9. When your security product fails (misses a virus) or when you have a false alarm, do you contact the manufacturer (e.g. through forums, emails, etc.) to complain and let them know?
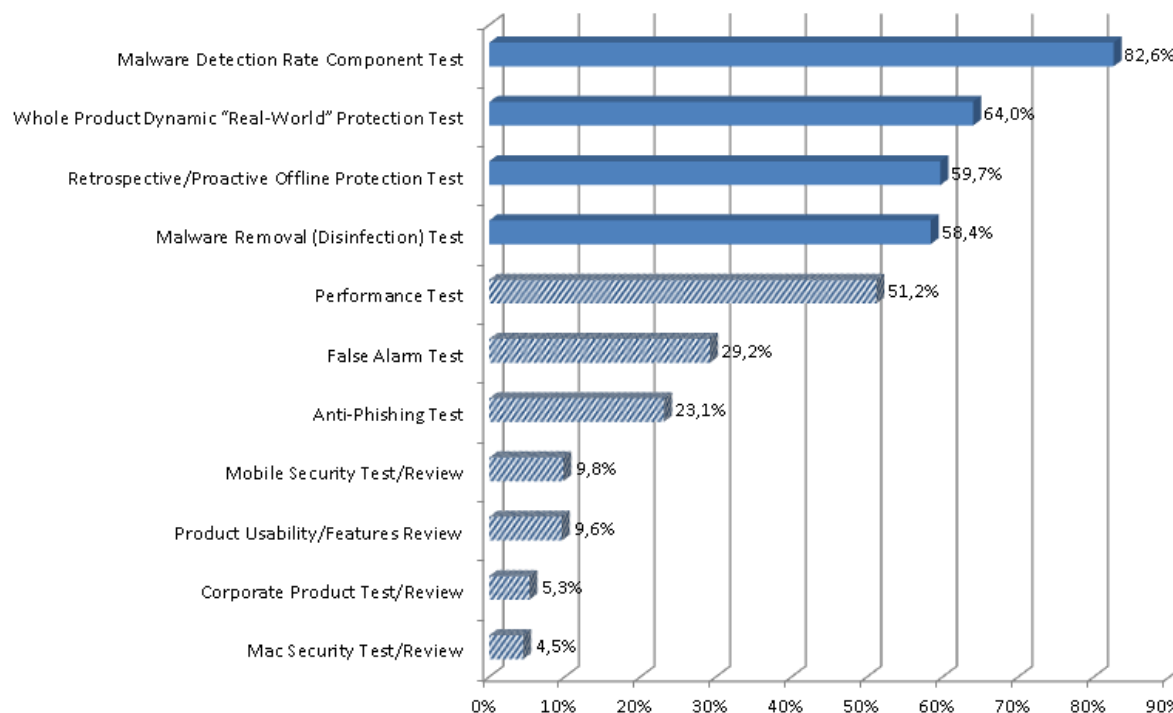

Most users do not attempt to contact the security software manufacturer in the event of false alarms or false negatives (missed malware).

10.   What is more important for you in a security product?

Almost three quarters of respondents worldwide felt that protection against malware was more important in a security product than system performance.

11.   Which type of tests are you most interested in (please choose 4)?
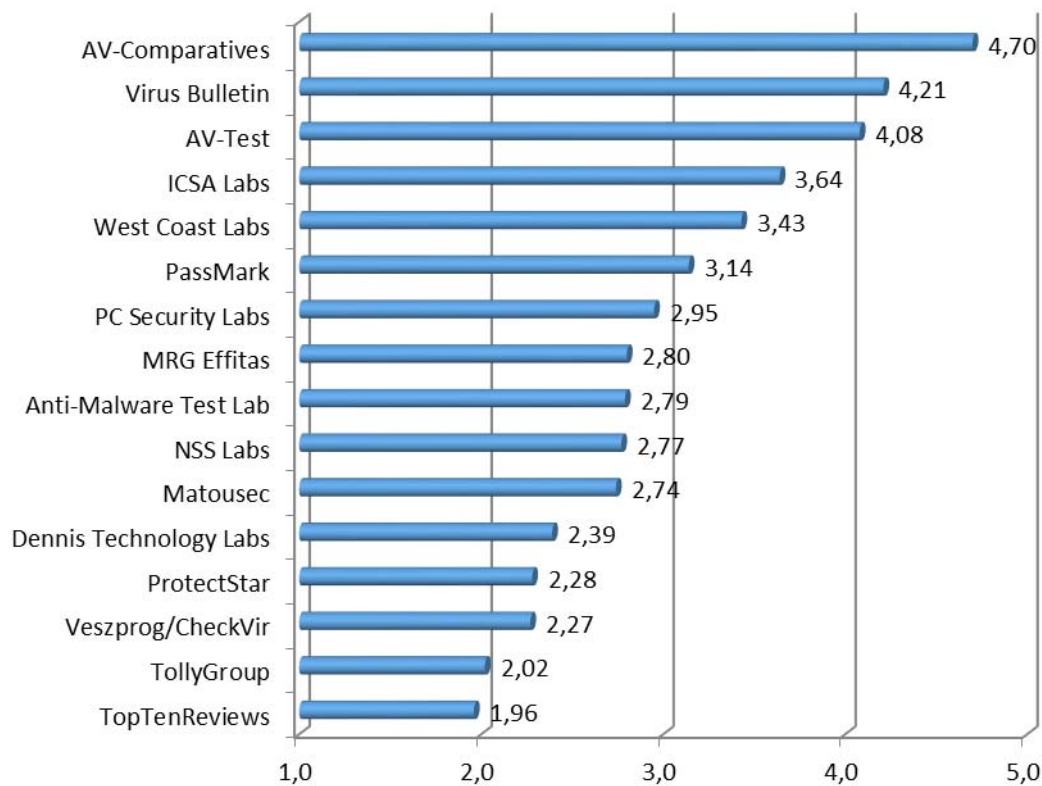

Clearly, the great majority of users are interested in on-demand malware file detection rate tests, followed by the Whole-Product Dynamic "Real-World" Protection Test, as well as proactive/retrospective tests that evaluate heuristics and behaviour-blocking capabilities etc. when offline. AV-Comparatives will continue to evaluate the quality of features provided in products – if a product did not include a e.g. file detection capability (i.e. on-access/on-demand feature), we would not test that product for it.

Over half of the survey participants found both performance testing and malware removal to be valuable.

The Whole-Product Dynamic "Real-World" Protection Test aims to perform an in-depth test of the security software under real-world conditions, and is promoted heavily by AV-Comparatives (and sometimes by the AV industry, depending on how they score) as the best type of test to reflect product protection capabilities while surfing the web; this year it was rated highly by survey respondents, although still significantly less than the File Detection Rate Test, which remained the most popular. AV-Comparatives is currently the leader in providing real-world protection tests, as part of its yearly public test-series.

Nearly 60% of respondents want AV-Comparatives to carry out proactive tests. We are aware that this test is not welcomed by some few vendors, whose security products rely heavily on cloud/reputation features, which may flag files that are rare or unknown to the cloud as suspicious. Using a cloud connection would make a proactive test impossible, as it would not test the heuristic/behavioural protection features of a product, but just use the old blacklisting model of known hashes or signatures, via the cloud.

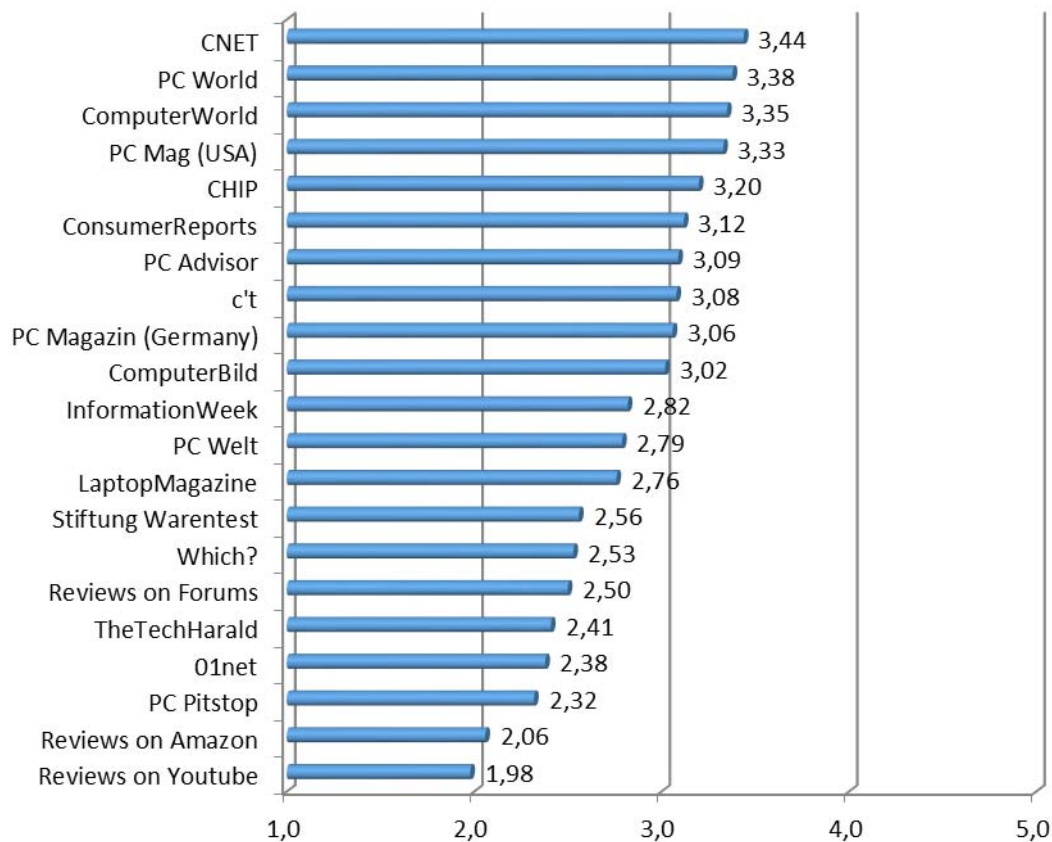## 12.   Which of the following testing labs are in your opinion reliable and trustworthy?

Users had to rate various security product testing labs and institutes by giving a score from 1 to 5, where 5 meant reliable/trustworthy and 1 unreliable/biased. Please note that not all respondents were aware of all the labs, so each lab was only rated by those who were aware of it.

AV-Comparatives, AV-Test and Virus Bulletin reached a mean score of at least 4. These three are also the best-known AV testing labs in the world.

For products that are not tested by us, we generally recommend our readers to look at the tests done by other well-known testing labs or at least certification bodies. A list of some of them can be found on our website.

13.   Which of the following magazines/reviewers are in your opinion reliable/trustworthy?
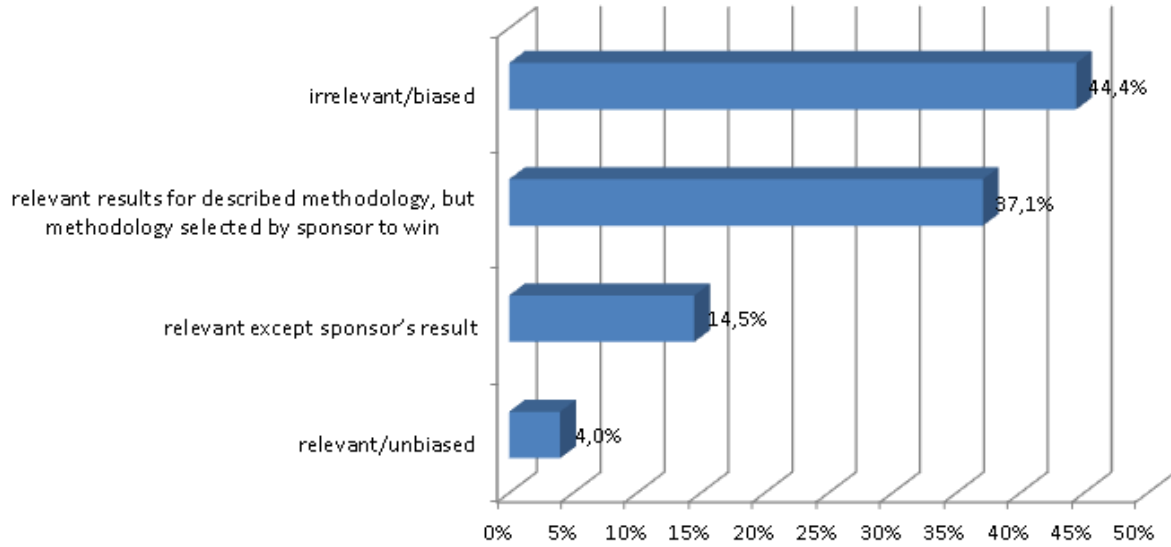

Users had to give a score from 1 to 5, where 5 meant reliable/trustworthy and 1 unreliable/biased.
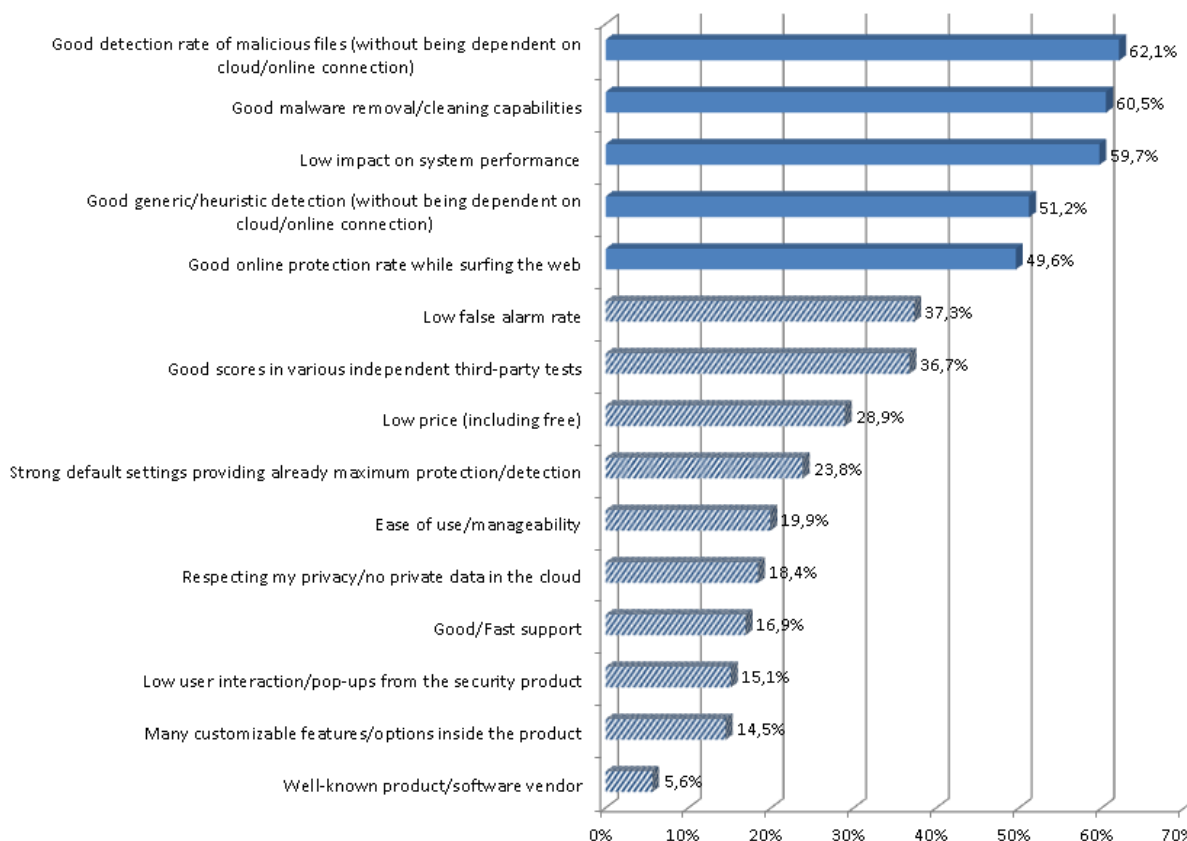
Reviews on Amazon and YouTube were regarded as the least reliable, probably because they are largely provided by users who are effectively anonymous. Whilst some reviewers may write competent articles with integrity, other writers may base their opinions on e.g. a one-off bad experience with a particular product, or deliberately deceive readers in order to promote a product they have a commercial interest in, or to malign competitors. The same applies to reviews on forums. In fact, there are paid bloggers, forum / Youtube posters etc. who provide e.g. fake Amazon reviews and feedback.

14.   What do you think about vendor-sponsored tests?

Users from Asia answered mostly "relevant results for described methodology, but methodology selected by sponsor to win". For the rest of the world, the verdict was clearly "irrelevant/biased".
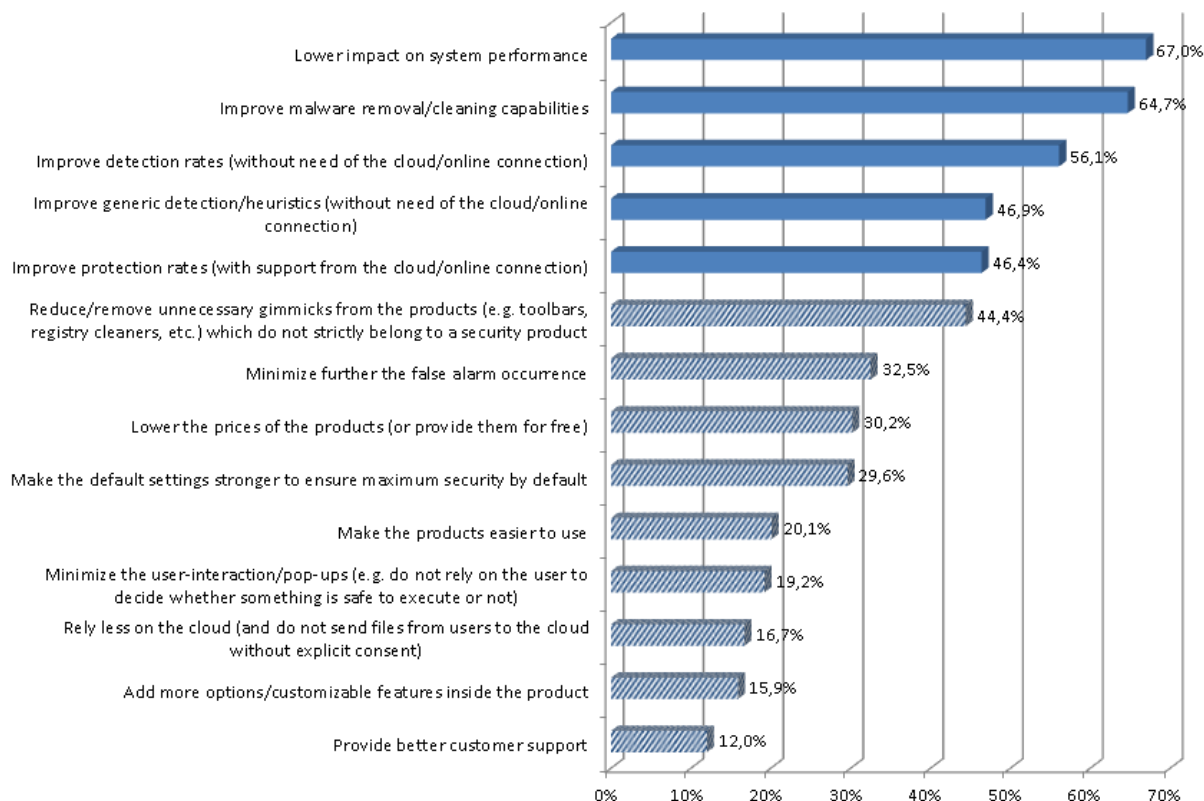
15.   What is important for you in a security product?

Good detection rate of malicious files (without being dependent on cloud/online connection)	**62.1%**
Good malware removal/cleaning capabilities	**60.5%**
Low impact on system performance	**59.7%**
Good generic/heuristic detection (without being dependent on cloud/online connection)	**51.2%**
Good online protection rate while surfing the web	**49.6%**
Low false alarm rate	37.3%
Good scores in various independent third-party tests	36.7%
Low price (including free)	28.9%
Strong default settings providing already maximum protection/detection	23.8%
Ease of use/manageability	19.9%
Respecting my privacy/no private data in the cloud	18.4%
Good/Fast support	16.9%
Low user interaction/pop-ups from the security product	15.4%
Many customizable features/options inside the product	14.5%
Well-known product/software vendor	5.6%

Users were asked to select five charactersistics of an anti-virus product which they considered most important to them. A majority of respondents chose the following: good detection rates of malicious files (without being dependent on cloud/online connection), good malware cleaning abilities, a low impact on system performance, good generic/heuristic detection (without being dependent on cloud/online connection), good protection against web-based threats. All those aspects are tested by AV-Comparatives with various test methods.

16.   What should AV vendors try to improve more, in your opinion?

Lower impact on system performance	**67.0%**
Improve malware removal/cleaning capabilities	**64.7%**
Improve detection rates (without need of the cloud/online connection)	**56.1%**
Improve generic detection/heuristics (without need of the cloud/online connection)	**46.9%**
Improve protection rates (with support from the cloud/online connection)	**46.4%**
Reduce/remove unnecessary gimmicks from the products (e.g. toolbars, registry cleaners, etc.) which do not strictly belong to a security product	44.4%
Minimize the false alarm occurrence further	32.5%
Lower the prices of the products (or provide them for free)	30.2%
Make the default settings stronger to ensure maximum security by default	29.6%
Make the products easier to use	20.1%
Minimize the user-interaction/pop-ups (e.g. do not rely on the user to decide whether something is safe to execute or not)	19.2%
Rely less on the cloud (and do not send files from users to the cloud without explicit consent)	16.7%
Add more options/customizable features inside the product	15.9%
Provide better customer support	12.0%

Respondents were asked to select 5 areas of security programs that they would most like to see improved. Not surprisingly, there was a high correlation between these and the answers to question 16, which areas respondents felt were most important. However, the most requested improvement, lower impact on system performance, was only third in the list of most important features. This suggests that respondents may feel that there is more room for improvement in performance impact, even if it is not the most important feature.

Over half of the respondents demand for improvements concerning malware removal capabilities as well as improved detection rates without having to be dependent of the cloud/an online connection.

Getting on for half of users who answered the survey wanted to see some "features", such as toolbars added to browsers/email programs/Windows Explorer removed. These may be perceived as an irritation and/or advertising (as well as adding further unnecessary impact on system performance).

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For more information about AV-Comparatives and the testing methodologies, please visit our website.

AV-Comparatives (March 2013)