Kaspersky Security Network

Kaspersky Security Network is a progressive technology implemented in the latest versions of Kaspersky Lab's consumer and business products. When it comes to new malware, it ensures a prompt response and an unprecedented level of detection that provides outstanding protection. Kaspersky Security Network not only allows previously unknown threats to be detected and blocked but can also locate and blacklist the online source, protecting users from subsequent threats that emerge from the same sources.

For corporate users Kaspersky Security Network offers additional benefits, in terms of enhanced control of applications and whitelisting for known legitimate applications. Kaspersky Security Network combines the capabilities of continuous globally distributed monitoring of real-life threats, a centralized analysis of threats using Kaspersky Lab's substantial expert and technology resources, and the immediate generation and distribution of protection measures. This produces a powerful synergy effect, providing users of Kaspersky Lab products with comprehensive real-time protection against new malware.

Quick, timely protection from cyberattacks

Malware such as viruses, worms and Trojans, have become the principle threat to the normal functioning of computers and to the information stored in them. The scope and range of malicious software is constantly expanding, presenting an ever-growing challenge to security. According to Kaspersky Lab internal data, about 70,000 new samples of malware appear "in the wild" every day. Malicious programs are also making use of new methods to penetrate computer systems, concealing their activities and bypassing detection by security software. No conventional malware detection methods can now provide complete protection when used as a stand-alone tool.

Today's computer world requires new integrated approach to ensure computer security. This approach has to combine the advantages and minimize the deficiencies of the traditional methods of combating malicious software, as well as harnessing the potential of global monitoring and automatic updating of new real-life threats. Namely this approach has been implemented in Kaspersky Security Network.

The basic principles of Kaspersky Security Network

Kaspersky Security Network includes several subsystems: continuous geographically distributed global monitoring of real-life threats on users' computers, instantaneous delivery of collected data to Kaspersky Lab's host servers, analysis of collected data and the creation of protection measures against new threats, and the fast distribution of those measures to users.

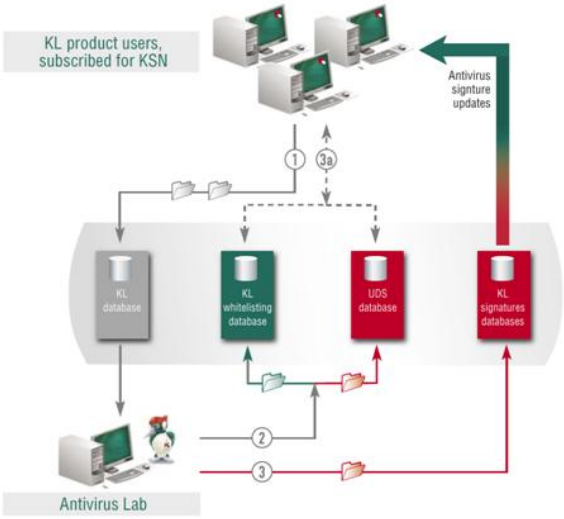
Kaspersky Security Network automatically collects information about attempted infections and sends the data to Kaspersky Lab. Information about suspicious files downloaded to and executed on users' computers is also collected, regardless of their source (websites, email attachments, peer-to-peer networks, etc.). This is done strictly voluntarily and confidentially – the user of one of Kaspersky Lab's consumer products has to agree to participate in the system. Users of Kaspersky Lab's corporate solutions do not participate in the process of forming up the database of Kaspersky Security Network. In any case, no personal information such as passport data, passwords or any other personal details is collected.

The information collected on attempted infections is sent to Kaspersky Lab's central servers and analyzed using the company's powerful in-house technology and expert resources. This ensures extremely fast and reliable detection of both new malicious and secure software. The decision on the safety of a program is made based on the availability

of a digital signature verifying the source and integrity of the program, as well as a number of other factors. A program recognized as secure is entered to the list of trustworthy applications.

A program is deemed malicious after the required detecting procedures are completed. As soon as a program is deemed malicious, it is reported to Kaspersky Lab's Urgent Detection System, so that the information becomes available to Kaspersky Lab product users even before the signature for that piece of malware is created and updated on their computers. In that way Kaspersky Lab's clients receive prompt information about new and unknown threats minutes after the launch of a cyberattack, compared to hours for traditional signature database update.

If a program is launched by a user, it is checked against whitelists and Urgent Detection System lists, and is granted rights to access computer resources or blocked accordingly. Kaspersky Security Network technology plays an important role in replenishing these lists and keeping them up to date, ensuring reliable control over applications.



Kaspersky Security Network flow chart

This flow chart describes the basic principles on how users of Kaspersky Lab's products interact with KSN. This interaction includes 4 different phases:

1. Information on the newly launched or downloaded applications and visited web pages (URLs) is sent by users of the most recent Kaspersky Lab's consumer and corporate products.
2. The files and URLs are checked and added to the Urgent Detection System database if they turn up to be malicious. Legitimate files are added to the "Whitelisting" database.
3. Kaspersky Lab's experts finish the analysis of suspicious files, determine their degree of risk and add the description to signature database.

3a. Information about newly discovered malicious and legitimate files and URLs becomes available to all users of relevant Kaspersky Lab's products (not only the subscribers of Kaspersky Security Network) minutes after the initial detection.

After the analysis of a new malicious program is completed, a signature is also generated and placed in the antivirus databases that are regularly updated on computers of Kaspersky Lab users.

Whitelisting is not the only technology that allows the user to make a decision about a program with the assistance of KSN resources. The system includes the reputational technology 'Wisdom of the Crowd' (WoC), which provides information about how popular a certain program is and its reputation among other users – the members of KSN.

Moreover, the latest versions of Kaspersky Lab products include an opportunity to get Global Security Ratings (GSR) direct from the cloud. Each GSR is calculated using a flexible, customizable algorithm and various reputational data.

Kaspersky Security Network therefore makes use of a combination of signature and heuristic malware detection methods as well as application control technologies using white- and blacklists, WoC and GSR.

Enhanced cloud security for businesses

With the release of Kaspersky Endpoint Security 8 for Windows, benefits of Kaspersky Security Network become available to Kaspersky Lab's corporate customers. Along with traditional protection techniques and advanced tools for corporate IT Security policy enforcement, Kaspersky Security Network brings prompt reaction towards new and unknown threats and helps to secure the confidential data from targeted attacks.

General principles of using Kaspersky Security Network in the business environment are equal to those for Kaspersky Lab's consumer products. Company's Windows-based endpoints use data from Kaspersky Security Network to evaluate the reputation of files and website URLs, and, based on that, block access to malicious content or apply certain restrictions on suspicious software.

There is a number of enhancements in Kaspersky Security Network functionality for corporate products. First, the cloud-assisted protection technology is used for application whitelisting, utilizing the data from Kaspersky Security Networks. Known legitimate files are automatically gathered in categories, such as games, commercial software, etc. Using these categories a systems administrator may quickly setup and apply certain rules for specific types of software, according to security policy. The data for Application Whitelisting functionality is also supplied by more than 200 leading software vendors and is used along the "crowd-sourced" information.

Kaspersky Security Center management solution provides businesses with a granular control on how Kaspersky Security Network is used to protect corporate endpoints. The administrator can select whether cloud-based protection is enabled or disabled in the specific modules of Kaspersky Endpoint Security 8 for Windows. In order to comply with certain security policies, it is also possible to disable sending data to Kaspersky Security Network. In order to reduce the bandwidth usage, an internal Kaspersky Security Network proxy may be installed inside the local network.

Cloud-based protection for consumers

The latest versions of Kaspersky Lab consumer products, namely Kaspersky Internet Security 2012 and Kaspersky Anti-Virus 2012, enjoy the full support from the cloud-based Kaspersky Security Network. Apart from the general benefits of cloud-assisted protection, the new versions of consumer products allow users to receive general statistics about Kaspersky Security Network: the number of users protected, malicious objects blocked and legitimate data processed.

Another new feature introduced in the most recent versions of Kaspersky Internet Security 2012 and Kaspersky Anti-Virus 2012 is the ability to check any executable file for its reputation based on the data from Kaspersky Security Network. Such query returns the verdict on the file in question (whether the program is legitimate or not) as well as the information about the date when the file first appeared, its popularity by country and other data. This feature allows users to do a basic check of unknown programs before launching them, although the same information is obtained automatically when a user tries to execute a file.

One of the distinct features of Kaspersky Internet Security 2012 is the cloud-assisted anti-spam technology. It uses information from Kaspersky Security Network to detect and block unsolicited messages, and does not require training of anti-spam filter, like in previous versions of this consumer product. The cloud-based anti-spam feature is region and language-dependent and may not be available in some countries.

The benefits of Kaspersky Security Network

Uninterrupted global monitoring of new threats and threat sources and immediate availability of new protection measures ensure an unprecedentedly rapid response by Kaspersky Lab to new threats and an unrivalled protection service for the company's clients.

Today, Kaspersky Security Network technology is used on millions of computers around the world, presenting a global but detailed picture of how new malware evolves and circulates, where new threats originate and how many infection attempts occur within specific time periods. The globally distributed malware monitoring carried out by Kaspersky Security Network provides an effective response to new threats no matter where the sources and targets are located.

Real-time malware monitoring on user's machines helps track actual threats and block them in their "in-the-wild" environments immediately after an infection attempt takes place.

Continuous malware monitoring and immediate reporting of suspect files to Kaspersky Lab ensure that the malware databases and the protection measures to combat these threats are always up to date. Automation ensures a much faster, more accurate and complete response than the conventional manual reporting of suspicious files to the antivirus vendor via email.

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Strict confidentiality is ensured: personal information such as usernames, passwords, personal data and document contents is not collected or transferred to Kaspersky Lab servers.

The latest Kaspersky Lab's products also utilize Kaspersky Security Network for more effective blocking of web links leading to fraudulent and malicious websites. Web links are first checked against the local database of phishing and malicious websites and if no match exists, are further checked against KSN's online blacklists. If they are unknown, they are heuristically analyzed for the presence of attributes specific to malicious links. Detecting dangerous links has become more accurate as KSN's online databases have accumulated a large amount of additional information about various websites since the 2011 product versions of consumer products were released.

Overall, users of Kaspersky Lab's products with support for Kaspersky Security Network enjoy more complete protection against personal data theft, as new malware designed to steal personal or business data is blocked in their computers, be it programs spying for files stored on the hard disk that send copies to hackers, keyloggers, screenshot senders, network activity spies, etc.

Kaspersky Security Network provides proactive defense, i.e., it identifies and blocks new threats before they become widespread and can cause any significant damage to users' machines. A proactive defense system is essential to ensure stable and uninterrupted operation of IT equipment and the business processes it supports.