SkyDNS

Solutions for Software

and Hardware Vendors

SkyDNS for Software and Hardware Vendors

The internet security and web classification markets require top quality, highly sophisticated solutions to satisfy demand of such market players as software and hardware vendors.

Depending on product specifications vendors look for an additional layer of security for users of their products, websites classification, internet traffic analysis as well as an opportunity to create a more precise user advertising profile.

To reach these goals the company offers vendors to integrate into their products the SkyDNS web content filtering service or its technology for categorizing internet resources.

We provide vendors with integration-ready, cost-effective and highly scalable solutions to allow them expand the number of features of their products, secure them from cyber threats and get detailed insights on user behavior online.

All SkyDNS solutions are based on our own database of categorized internet resources, SkyDNS DB with over 90M sites. To make the categorization of internet resources precise we process and analyze terabytes of DNS logs generated via the SkyDNS filtering service and data gathered by our own farm of web crawlers. Continuous machine learning, AI and user behavior analysis, applied to this data, ensure excellent quality of our technology for internet security and web classification.

SkyDNS integration-ready solutions are designed for:

Networking hardware vendors (web gateways, Wi-Fi routers, firewalls, and other network equipment)

Security software developers (DLP- and DPI-systems, antiviruses, web filters, parental controls etc.)

Internet application developers (antiphishing modules, advertising systems, forums, social media sites etc.)

Around the world our filtering solutions are already integrated in network hardware by Fält Communications (Sweden), Dovado (Sweden) and ZYXEL (Taiwan). The manufacturers successfully sell their network equipment in EMEA and beyond.

Offer customers new opportunities

Integrating SkyDNS is indispensable for:

Web filtering with filtering by content categories, black and white lists, safe search etc. It allows you to monitor and filter the internet on per user or per device basis with different settings for users of your network equipment.

Analyzing users' traffic to identify safety violations and create a user advertising profile.

Using SkyDNS DB in your software and services or the content filtering software already installed onto your equipment.

We have a number of open APIs to integrate our services and database into third-party products:

Categorization SDK and API. It allows to get content categories for certain websites and links from our database via SDK or HTTP GET request to our API.

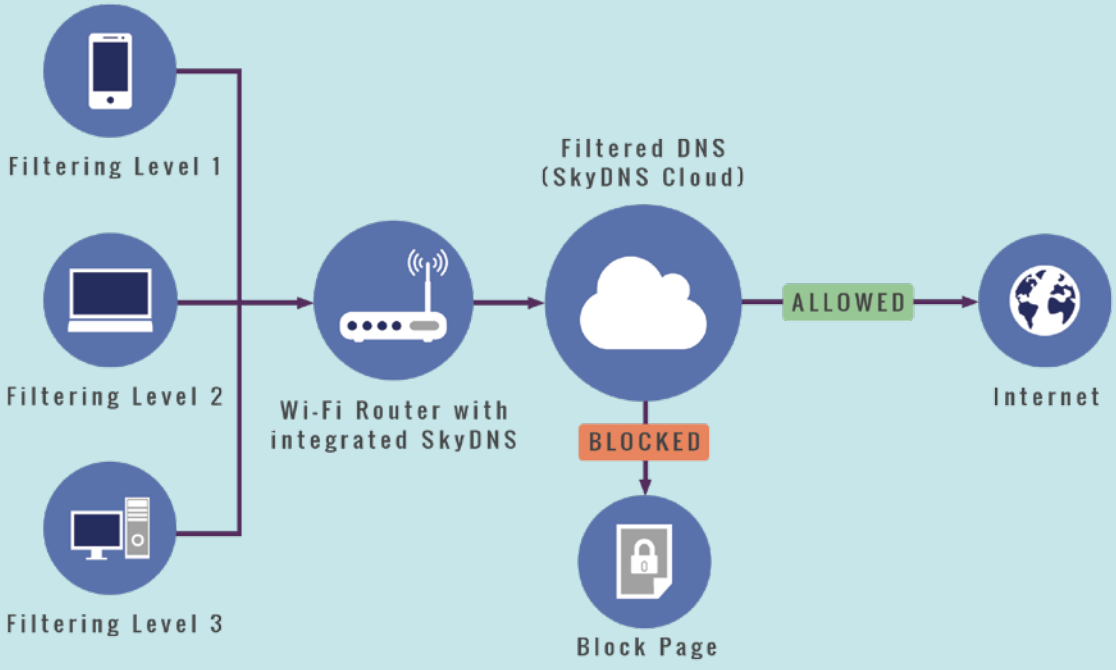
Subscription API. It allows to create users in the SkyDNS cloud service with the preset parameters of subscription (duration and a billing plan), assign and change IP addresses, passwords etc. This API can be used to integrate your network equipment centralized management system with our cloud filtering service. It is usually used in conjunction with our White Label Portal (a brand-free cloud filtering service).

Update API. Used in routers with dynamic IPs to update these addresses in the SkyDNS cloud via the standard API similar to APIs of Dyn.com, DNS-O-MATIC etc.

JSON-RPC API. This is the core API of the entire SkyDNS service. It's used for the management of all user settings, signing DNS requests with user's tokens to differentiate users' requests on the local network and behind the NAT. This API is used in our agent software and is the main API for integration of our service into Wi-Fi routers and other network equipment.

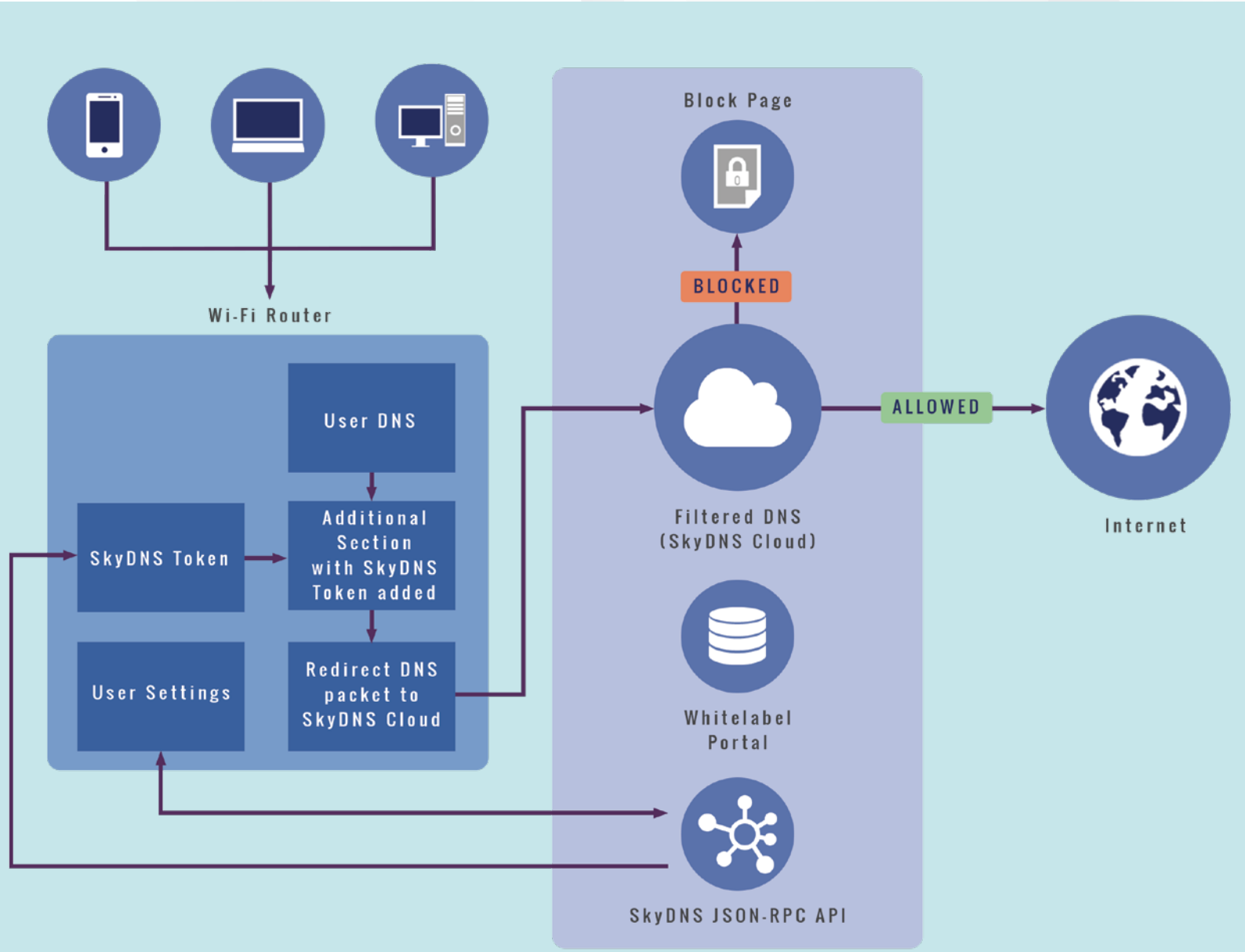
Possible ways to integrate SkyDNS into your networking hardware

Using our cloud service in the Filtered DNS mode. It does not require additional adjustments from the user side, except for the choice of a filtering policy on the equipment or in the management system. You can create different filtering levels, e.g. policies for different users of the equipment. From our side – we create up to 5 unique DNS service IP addresses on our cloud servers. Different filtering settings are applied for each of these IPs. For example, on the first IP users get the maximum filtering level for all adult content, social media, forced SafeSearch in Google and Bing, Restricted Mode for YouTube etc. On the second IP – medium level of filtering, where access to social media is open, a safe mode for YouTube is off. And on the third IP – everything is open, except for porn and malicious resources.



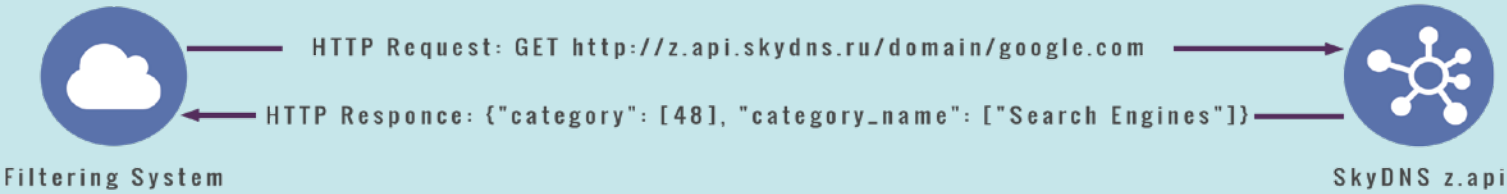
Redirecting all your customers' DNS requests to one of these addresses ensures all of them will be filtered with the same settings considering the chosen level of filtering. You will be able to manage filtering settings for each IP and customize block pages via your account in our service.

Full integration of the SkyDNS cloud content filtering service into your devices for filtering users on a local network and behind a NAT with different filtering settings. In this case JSON-RPC API is applied. As our filtering technology is based on resolving DNS queries, DNS packets are modified inside your network equipment according to the scheme below. A special token is added to the additional section of DNS requests coming from an end user device. Tokens are applied to identify users on the side of SkyDNS servers to apply the necessary filtering rules to devices of the identified users.



This kind of integration is already deployed in ZYXEL Keenetic SOHO WiFi routers and Fält Communications Wi-Fi routers for transportation systems.

Using SkyDNS Categorization SDK for traffic analysis of your security software or existing content filter in your hardware. In order to get websites and URLs categorized use our special Categorization SDK and API. For high load real time systems SkyDNS Categorization SDK should be used. For other cases we offer a high speed Categorization API.



For all integration options we provide a detailed description of the solution architecture to seamlessly integrate SkyDNS into your products. Upon additional agreement we can fully develop an integration module for your equipment.

Big data analysis

On top of all listed options SkyDNS provides big data analysis of DNS requests from your network equipment in order to identify malware resources and infected end user devices. Based on machine learning and user behavior analysis our classification system, already deployed in the SkyDNS core service, is highly precise in:

- Identifying malware resources and infected user devices requesting those resources.
- Creating a precise user advertising profile.

SkyDNS makes it easy for you to

- Integrate and manage its filtering solutions with open APIs
- Meet customers' expectations for enhanced protection against web-based threats
- Offer customers new cool features like content filtering and network monitoring
- Get detailed data on how web traffic is used on a network to improve security and create a more precise customer internet usage profile

Why SkyDNS

We provide cloud solutions for web content filtering and internet security focusing on the telecoms market and that of network equipment manufacturers. Our products and services are used by over 100 mobile and internet service providers to allow, block and monitor access to the internet and increase customers' safety online. The SkyDNS filtering solutions are integrated into network hardware of vendors selling it internationally.

The SkyDNS highly scalable distributed network is able to accommodate any number of users and provides fast response worldwide with no latency. SkyDNS processes over a billion requests daily blocking access to 9 million queries to malware and botnets. We have a global coverage with SkyDNS filtering servers located throughout data centers in Europe, New Zealand, North and Central America with 100% up-time during the last 5 years.

Our own farm of web crawlers gathers huge amount of data off the internet. That is why our internal database covers billions of URLs and over 180M websites.

By now the efficiency of the SkyDNS web filtering technology has been proved several times by AV-Comparatives, a world leading test lab. For 3 years straight our filter is named Approved Parental Control Product. In 2017 test the SkyDNS technology proved to block 99.8% of adult content and had zero false positives.

Our database of categorized internet resources, SkyDNS DB is included in Best Soft 2016 list compiled annually by PC Magazine Russian Edition, a respected and popular edition of a world known publication.

The SkyDNS technology is Editor's Choice for Content Management & Filtering Solutions in 2016 Cyber Defense Magazine Infosec Awards. We create a next-generation innovation and advanced technology for protection against web threats and making the internet cleaner and safer all our users. This fact is recognized and emphasized with this award by the industry's leading electronic information security magazine. The award further validates our company as an innovator in the sphere of online security and web content filtering.

Since 2010 SkyDNS develops web filtering and internet security solutions for end users and the telecom market. Now >100 network operators protect millions of subscribers with the SkyDNS solutions. In >40 countries SkyDNS provides products and services to educational institutions, home and corporate users like network operators, MSPs and VARs. Now SkyDNS solutions are used by more than 4000 businesses and institutions and hundreds of thousands of home users.

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