

# GATEWALL DNS FILTER

Filtering traffic by DSN requests

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## SECURITY ISSUES

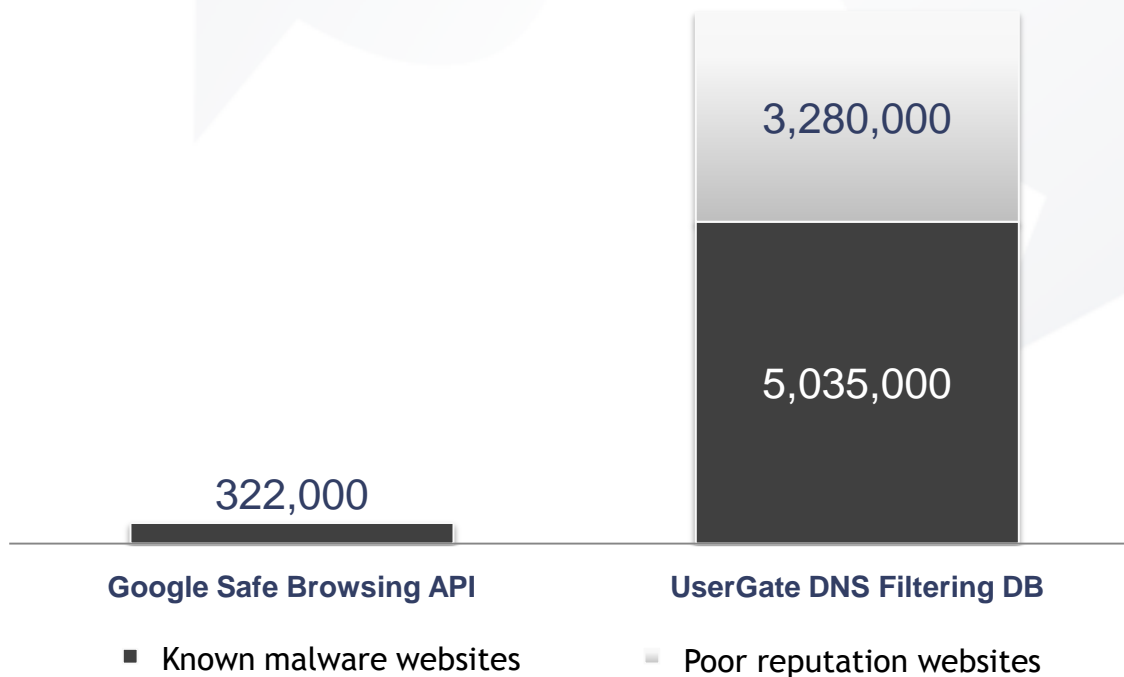
- Over 90% of viruses infect your machine via the Internet
- The number of infected websites keeps growing
- The number of new websites grows exponentially

The growing popularity of social network brought new types of fraud designed to obtain t a victim's personal information.

It is often difficult to distinguish a phishing website from a normal site.

## ENTENSYS DATABASE VS FREeware ANALOGS

Blocking websites that contain phishing links, Trojans, keyloggers, botnets and malicious software



- Some 100,000 new websites are added daily
- Information on malware websites comes from multiple sources

## DYNAMIC APPROACH BENEFITS

### PORN SITE CREATION EXAMPLE:

1. Create a website about butterflies
2. Classify the website as an educational page about animals (dynamics and statics)
3. Replace content with pornography
4. With static approach, the site will be categorized as a site about animals
5. With dynamic approach, its category will be changed to Porno

### DYNAMIC APPROACH

- Some 100,000 websites get modified every day
- Information on malware websites comes from multiple sources
- Database contains around 500 million websites
- Database is kept constantly updated

### STATIC APPROACH

- Category updates are rare
- As a rule, the update process is launched manually

## EMPLOYEE EFFICIENCY

- 24% of the sites that office employees visit are social network sites
- Around 55% of website requests are not related to their work
- The main goal of a social network is to make a user spends as much time as possible on the website

Companies with 20 to 100 employees show the highest percentage of unwarranted Internet usage.

HOWEVER, such primitive restrictions as keyword blocking or black and white lists may have a negative effect on employees' performance.

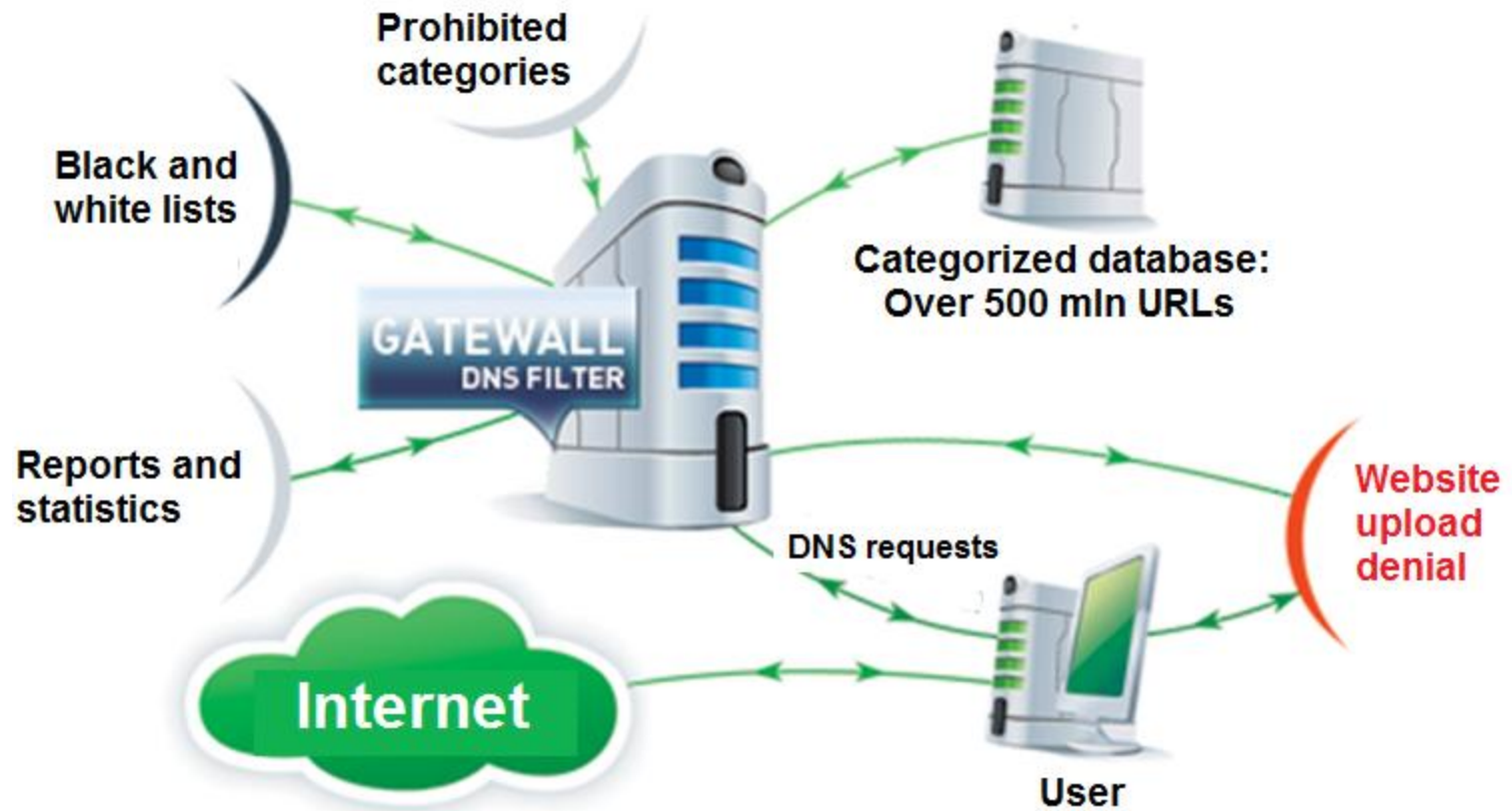
## GATEWALL DNS FILTER – THE SOLUTION

- Uses SaaS model (*Software-as-a-Service*)
- Filters websites (*500 mln URL database*)
- Protects from malicious software
- Generates Internet usage reports and statistics



- Internet usage monitoring
- Increased Internet security
- Less unwanted traffic
- Better employee performance

## ARCHITECTURE



## HOW DOES IT WORK?

- Denial by categories (82 categories with 500 mln websites)
- Black and white lists
- White list inclusion request web-form
- Website category modification request web-form
- Advanced fail-safety
- Web statistics (reports)

## BLOCKING URL CATEGORIES



An administrator may easily configure the application to block sites belonging to the following categories:

- Porn sites
- Malware websites
- Online gambling sites
- Proxy servers and anonymizers
- Social networks
- Torrents and P2P networks
- Gaming and entertainment portals

## CUSTOMIZABLE BLACK AND WHITE LISTS

White lists guarantee access to certain websites

Some websites are blocked regardless of other network settings



# gateway

## DNS FILTER

## REPORTS

- Statistics by hits and categories
- Lists of blocked websites

The screenshot displays the Gateway DNS Filter web interface. The top navigation bar includes the logo, user information (Пользователь: 192.168.0.26, Сервер: МКС-ХР), and navigation buttons (List, Back, Links, Pie). The main content area shows a report for the period 01.04.2010 - 30.04.2010. A pie chart titled "Все запросы" shows the distribution of requests by category: Computer and Internet Info (30.2%), Computer and Internet Security (29.5%), Business and Economy (29.1%), and Остальное (11.2%). Below the chart is a table with the following data:

Заголовок	Количество DNS запросов
Computer and Internet Info	284
Business and Economy	277
2.x	274
Computer and Internet Security	28
Web based email	28
2.x	28
Unknown	18
Search Engines	14
Web Advertisements	7
Internet Communications	7
Adult and Pornography	4
News and Media	8
Остальное	19
<b>Всего:</b>	<b>940</b>

Below the pie chart, there is a table showing the number of DNS requests for the month of April (Апрель) 2010. The table has two columns: "Заголовок" and "Количество DNS запросов". The data is as follows:

Заголовок	Количество DNS запросов
Computer and Internet Info	274
Business and Economy	274
Computer and Internet Security	28
Web based email	28
Unknown	14
Search Engines	14
Web Advertisements	7
Internet Communications	7
Adult and Pornography	4
News and Media	8
Остальное	19
<b>Всего:</b>	<b>936</b>

The interface also features a sidebar with navigation options and a bottom section with a bar chart titled "Диаграммы директора" showing the number of requests for the month of April 2010. The bar chart shows a single bar for "Разрешенные запросы" with a value of approximately 360.

## POTENTIAL USERS

### PUBLIC INSTITUTIONS

- Schools
- Social insurance agencies
- Tax inspectorate offices
- Municipal and regional administrations

### SMALL- AND MIDSIZED BUSINESSES

- Banks
- Insurance companies
- Mining companies
- Distribution networks
- Etc.

### INTERNET SERVICE PROVIDERS

- Home networks
- Second-tier ISPs
- Large ISPs
- Business centers

\* Individual approach to each ISP

### GateWall DNS Filter:

A handy tool that allows Internet usage control in companies of any size and companies with a spread out infrastructure

## PUBLIC INSTITUTIONS

- Schools and other educational institutions



Internet access at schools is one of the priority tasks of governments in many countries.

These projects in almost all cases require Internet usage at schools to be monitored.

- Social insurance agencies
- Retirement funds



### Public Internet services

Every year, many projects are launched that involve different technologies and require the use of the Internet. Hence the requirement to control and secure Internet access.

## SMALL- AND MIDSIZED BUSINESSES

- Proactive protection



Websites from the most dangerous categories are blocked (Spyware, Malware, Adult, Porno, Social Networks, etc.). Category listings are constantly updated.

- Employee performance



Allocation of Internet traffic by categories, time and date. Websites that are not related to work (including social networks, online gaming portals, etc.) are blocked. This helps improve employee performance.

## INSTALLATION AND INTEGRATION

- Each project is reviewed individually
- Compatible with Microsoft NLB (Network Load Balancing)
- Flexible billing system (monthly or annual billing)
- API for integration with ISP's billing system
- API for rules management from client account page
- Integration assistance



## SIMPLE SOLUTION

- Cloud-based model
- GateWall DNS Filter does not require local installation of any hardware or software solutions
- The program remembers the current network mapping, security settings and processes executed by all existing applications
- URL database updates run in the background and do not interfere with the users' work

## SOME ALTERNATIVES

### OpenDNS

A solution for large- and mid-sized companies and schools (K-12 schools)



### WebSense Hosted Web Security

One of the world's top vendors of information security solutions

