

## Optimization of a Company's Costs Associated with Internet Usage



Costs associated with Internet use have grown significantly for the majority of companies. However, this is not unusual as many companies' work requires different types of Internet access. Managers consistently search for ways to reduce Internet-related costs and avoid wasting Internet resources. That's why traffic content and optimization issues as well as Internet channel efficiency and cost reduction are extremely relevant.

### Cost Estimation

To be able to estimate a company's monthly web traffic, and receive a clear picture of what online resources the company is paying for, a company should have the capability to review and analyze the detailed statistics of the Internet resources that their employees request. The statistics reports can show the resources that are critical for effective work and the non-work related resources, which are paid for by the company. The latter may comprise more than half of the overall Internet traffic costs.

UserGate Proxy & Firewall 5 proposes analysis of Internet traffic based on the detailed statistics of all Internet-accessed resources. UserGate allows review and analysis of the data filtered by different parameters, e.g. user, a group of users, period of time, type of resources, etc., thus making it possible to see the Internet traffic distribution among employees, the most popular web-sites, the time of day, distinguished by the maximum intensity of traffic use, and the Internet traffic distribution throughout the various network protocols. All of the statistical information is displayed in tables and diagrams.

The next step is the company's billing system – a system that keeps a record of the money spent for a unit of Internet traffic. With the provider's unit rates available, it is easy to calculate how much money is being spent on a particular category of web resources, which resources are more expensive and which resources are not work-related, as well as to determine which department spends the most money on the Internet. It is important that the calculation of the traffic used by a group of employees and by an individual employee during a given period of time provides a higher accuracy of traffic use estimation. Besides, the software can estimate the cost of traffic used by particular Internet-based applications.

The billing system incorporated into the UserGate software automatically calculates the Internet traffic cost based on the relation of price against the duration of access and/or the traffic volume, thus demonstrating what the company actually pays for. UserGate can take a chaotic list of URLs, IP-addresses, megabytes of traffic and downloads and show them in concrete money terms, and display the company's Internet access expenses.

By this simple analysis, IT specialists can determine the volume, structure and cost of the company's monthly Internet traffic and, subsequently, optimize and significantly reduce monthly Internet-related costs.

## Data Communication Operating Costs Reduction

UserGate provides a comprehensive approach to cost reduction and optimization. The software can be used as a proxy-server, filtering tool and other tools allowing user network access control, and it actively employs its integrated features for Internet cost optimization purposes.

### Caching

Web caching is the most ingenious and easily understandable technology implemented in UserGate. Expert analysis demonstrates that recurring data fragments may make up to 70% of overall Internet traffic. With this in mind, UserGate caches the frequently requested web pages to prevent their recurring download from the web source and, in case of a repeated request, retrieves information from the cache memory in the off-line mode. This helps reduce data channel traffic and minimize traffic costs.

This simple technology is highly effective in corporate networks where employees frequently use the same Internet resources.

### Traffic Filtering

Analysis of the Internet traffic used by the company helps determine the list of Internet resources critical for efficient work; having done this, the company can deny or restrict access to non-work-related resources, thus reducing the Internet traffic volume by around 40%, which means almost cutting company Internet traffic in half.

Apart from being a standard proxy-server tool, the traffic filtering service in UserGate is implemented through the BrightCloud engine, which allows blocking certain categories of undesirable web-sites that are not work-related, including online dating, games, travel, etc. By using gate traffic filtering, UserGate helps minimize the volume of non-work-related resources requested by employees; moreover, the capability of assigning access rights to users reduces lost working hours that the company pays for on a monthly basis.

### Flexible Access Limits

Uncontrollable access to Internet resources evidently results in significant costs incurred by a company. Being an Internet access control utility, UserGate provides tools for assigning limits of downloading and browsing different web resources. For example, the software may be used to deny the download of files of a certain size and extension, such as large-size media files, as well as restrict the browsing of images and advertising banners and downloading of executable files, which helps significantly reduce the volume of non-work-related traffic. UserGate employs flexible means of user authentication in local area networks to determine the level of permitted access to certain Internet resources.

Another important factor is Internet applications that are designed to independently request and download updates, often without being noticed by a user, which does not exemplify a reasonable use of Internet resources. The solution UserGate offers is control of the work by Internet applications, which is achieved by assigning permissions to certain applications and providing capabilities for denying access to individual ports or web-sites containing update downloads.

### Employee Internet Use Schedule

Corporate Internet is a working tool and it must be used in accordance with a company's work schedule. To prevent non-work-related access to Internet resources during lunch breaks, off hours, as well as on weekends and public holidays,

UserGate allows development an Internet access schedule, taking into account the days of the week, time of day and days off. The schedule will keep a manager confident that web resources are being used at the right time and for the right purposes.

## Multiple Provider Support

Many companies work with several Internet providers at the same time depending on the cost and quality of their services. Using a combination of different plans, a company can design its own convenient style of using Internet services during different days of the week, on public holidays, etc. UserGate supports the capability of working with several providers simultaneously and allows for a dynamic transfer from one to another, which provides an opportunity for the flexible combination of easy terms and acceptable traffic cost, with the ultimate purpose of cost optimization.

## IP Telephony Support

IP telephony has become the most promising voice communication technology, which is being used by many companies as an alternative to conventional wire communications due to its good quality and significant reduction of communication-associated costs. UserGate supports incoming and outgoing telephone calls from any IP telephones installed within the LAN and can generate detailed reports about the calling time and traffic spent by any and all users.

## Anticipated Costs

Corporate Internet costs must be predictable. Analysis of previously visited web sites can demonstrate the potential short-term costs associated with Internet traffic. For more accurate forecasts, UserGate offers billing tools that help register all traffic expenses.

When creating corporate plans for individual LAN users or groups of users, system administrators can set limits for the use of Internet resources identified by traffic or cost; when the limit is depleted, access to certain Internet resources will be blocked. The software provides a capability of assigning an account with individual balance for each user that is automatically tracked by UserGate; a large variety of access restrictions to certain resources may be implemented when a user's balance has depleted.

This method will guarantee the company stays within certain limits of expenses allocated for Internet use during a given period of time and provide users with all the resources required to work efficiently.