



# Effective Enterprise Internet Management

## Table of Contents

- Overview.....3
- Statistics on Internet Abuse.....3
- The Risks of Uncontrolled Internet Access.....4
- Educational Concerns.....4
- Business Issues.....4
- IAP Requires Filtering and Reporting.....5
- Content Filtering.....5
- Control List Database.....5
- Flexibility in User Settings.....6
- Reporting for Effectiveness.....7
- Conclusion.....7
- About Burstek .....7



# Effective Enterprise Internet Management

## Overview

It's difficult to imagine a modern work environment without Internet access, yet, much of the information available to employees on the Internet today is not job related. What began as a boon to productivity has now become a drain on productivity and a potential security risk of epic proportions. In response, organizations have increasingly sought ways to proactively control Web access. The lack of any constraints on content on the Web has created an enormous amount of sites that are not suitable for children and are a source of possible legal liability because of their offensive nature. Companies that provide Internet access to their employees for business purposes need to be concerned about managing that access to avoid loss of productivity, loss of network bandwidth and responsiveness and/or exposure to legal liability by failing to control frivolous and totally inappropriate non-work related browsing by employees.

Over the past few years, the need to proactively control Web access has driven the development of a variety of Web-filtering methodologies, from plug-in hardware for the single PC user to complex and cumbersome software packages. However, the unrelenting growth of new Internet content combined with the need for transparent network installation and simple administrative mechanisms to manage large numbers of users have often made these alternatives either too unwieldy and/or too ineffective for use by most businesses and educational organizations.

In response to the specific needs for comprehensively and flexibly controlling Internet access for users throughout business and educational settings, a new generation of solutions has now emerged to provide precision control over all Internet usage. Features to look for: Easy installation and administration, customizable filtering mechanisms and user profiles, sophisticated monitoring and filtering of all Internet content types, and a high degree of scalability and maintainability. Products like Burstek's EPM server software and subscription service were designed to fulfill those needs, and can empower organizations to take full control over their Internet access issues.

## Statistics on Internet Abuse

- 70% of all Internet porn traffic occurs during the 9-to-5 workday. (SexTracker)
- 32.6% of workers have no specific objective when they surf the Internet. (eMarketer.com)
- One in five men and one in eight women admitted using their work computers as their primary lifeline to access sexually explicit material online. (MSNBC)
- Web users at the office take advantage of high-speed connections to access broadband entertainment sites such as Broadcast.com and MP3.com more frequently than at home. (Nielsen/Net Ratings)
- 82% of U.S. business executives surveyed by the consulting firm Dataquest (a division of the Gartner Group) believe Internet use should be monitored at their companies. (InformationWeek Online)
- Sex site surfing is reported in 62% of organizations. (PC Week)  
Internet surfing on the job accounts for 30-40% of lost worker productivity. (IDC Research)



# Effective Enterprise Internet Management

## Uncontrolled Internet Access Risks

Any business or educational organization that provides Internet access has both an implied and explicit responsibility for monitoring and controlling that access. Controlling Internet access is important from a moral, ethical and productivity view but, just as importantly, emerging Internet case law establishes an organization's responsibility for due diligence in establishing, monitoring and enforcing acceptable Internet Use Policies.

## Educational Concerns

From the standpoint of the educational community, the Internet represents an unprecedented opportunity for exposing students to new research methodologies and a worldwide breadth of information content. Not only can young people experience firsthand the joys of inquisitiveness and the thrill of new discoveries through their Web-based research, they can also learn the need for discipline and discriminating analysis in response to the wide array of sometimes conflicting content available. Used properly, the sheer magnitude of the Internet can provide a fertile environment to support independent learning and to foster in-depth student-teacher dialogs. Obviously, these perspectives are shared by the combined public and private efforts that have already led to nearly 90 percent of American schools being connected to the Internet. On the down-side, widespread access to the Internet throughout our school systems has also opened the door for potential abuse or accidental exposure to very inappropriate information by students. Educators need to diligently protect their students from access to adult materials such as pornography as well as from potentially dangerous information, such as guidelines for bomb-making, sites advocating violence, hate, racism, or drug use, and even some mainstream commercial sites such as those promoting alcohol or tobacco products. By providing Internet access, educational institutions assume an expanded responsibility to ensure that inappropriate sites are blocked.

## Business Issues

Internet access has also become a vital tool for boosting the effectiveness of both private businesses and government organizations. Not only can Web access be used for quickly researching new technologies and product opportunities, it also provides immediate fingertip access to a wealth of competitive and market trend information. Other Internet services such as e-mail and newsgroups allow greatly improved communication with customers and colleagues that enhance both the speed and quality of business dealings. In addition, the rise of e-commerce capabilities has for many businesses moved the Internet from a peripheral support function to a core component of their overall business strategies.

Here again, the downside of providing widespread employee access to the Internet is the potential for abuse. From a business standpoint, the major concern is the risk of productivity losses resulting from staff using valuable work time to surf the Web or access personal services such as travel sites, on-line gambling, and chat services. Even access to relatively benign sites such as streaming audio music services, while perhaps not directly effecting productivity, can pose a significant drain on the company's available bandwidth and computing resources. In addition, businesses must also protect themselves from the potential legal liabilities of inappropriate access, such as sexual harassment lawsuits that could arise from an employee's unauthorized access and display of pornographic materials using the company Internet connection.







# Effective Enterprise Internet Management

## IAP (internet access policy) requires filtering and reporting

For both business and educational organizations, the backbone of any responsible action towards limiting liability is the establishment of Internet Access or Acceptable Use Policies (IAP/AUP). Not only do such policies define and communicate the organization's rules and expectations with regard to Internet access, they also provide the framework and audit trail for documenting violations and problem areas. Often, just having a written policy acts as a sufficient deterrent to unacceptable Internet usage. At the very least, it provides a firm basis for communicating with students or employees whenever policy violations lead to the need for corrective action. However, like any rule that is not enforced, Internet access policies that are not backed up by proactive monitoring and access control measures will soon be ignored, losing both the ability to effectively guide users' behavior and to protect the organization from liability. Therefore, most organizations are turning to the dual strategy of publishing clear Acceptable Use and Internet Access Policies combined with instituting comprehensive precision Internet access control and reporting over all user activities.

## Content Filtering

A content filtering solution is only as good as the Web data it collects and analyzes. There is a fine line in Internet access management of blocking too little or too much. The more advanced filtering methods utilize a database of URL and IP address information to block access to specific sites that have been pre-determined to contain inappropriate content. Content security using filtering technology provides the key protection against risk due to employee behavior and abuse of IT resources. Filtering solutions can protect an organization from employee mistakes including:

-  Accidental dissemination of sensitive corporate information
-  Willful and malicious transfer of data
-  Accessing objectionable or illegal content
-  Illegal file sharing

Filtering solutions allow management to control who may access and distribute information. This limits the amount of damage that individuals can do and aids in the enforcement of both security and privacy policies. Even when an acceptable use policy (AUP) is in place, administrators often lack the means to enforce it. Filtering solutions enable management to enforce security policies, privacy policies and AUPs while managing staff productivity and minimizing wasted network bandwidth. Blocking by URL address, the method used by bt-WebFilter, is the most sophisticated technology. Utilizing a database of millions of URLs, access can be denied to specific pages within a single Web site. This method allows for greater accuracy in filtering and reporting as well as giving the greatest amount of flexibility to overall content management. The advanced technology in bt-WebFilter utilizes an extensive URL database with the ability to classify by IP address. This methodology has proven to be the most effective and scalable when used as part of an enterprise-wide Internet Management Policy.

## Control List Database

The Internet is a constantly-changing environment with new Web sites and pages added and altered all the time. Because of this, one of the most important criteria in selecting an Internet management solution is the accuracy and currency of the control list database. As the Internet is dynamic and changes from minute to minute, so the core component of any filtering and blocking tool, the control list, must be dynamic and changing. The filtering tool must contain a mechanism that allows for constant and regular updates as well as maintenance of the database. The most comprehensive of



# Effective Enterprise Internet Management

## Reporting for Effectiveness

Gathering and storing data is of no real use unto itself. The ability to take the data and convert to a concise and easy to understand report is true information. Enterprise Internet Management can not be effective without the ability to track where, when, and how an organization's Internet resources are being used. Automated reporting increases the efficiency of policy enforcement, allowing management to stay informed of employee activities. Reports should be customizable to allow for different information requirements and reporting to different levels of an organization. Automatic scheduling of periodic reports as well as real-time notification and reporting of abuses are essential and will increase the ROI of the program.

Type	Category/Rate	Web-Page	Percent	Sites	Download Time	Working Time	Bandwidth	Comments	Cost \$
Computer Network		1,898	-27%	17	2601	4,238	18,411		95.6
Research		724	-10%	7	10414	10938	5,860		2.51
Shopping		511	-7%	30	2038	15240	4,191		5.88
Search		363	-5%	13	813	1,0845	5,827		7.29
Email		306	-4%	5	397	12136	5,812		7.83
Marketing		274	-4%	10	1138	10838	5,817		8.81
Advertising/News		196	-3%	9	148	2644	317		0.81
Travel		88	-1%	5	157	2088	1,884		1.88
Direct Advertis		76	-1%	8	101	1738	838		1.18
Gaming		52	-1%	7	954	1388	548		0.78
Spotify		48	-1%	5	828	1288	748		1.88
Entertainment		43	-1%	4	248	1888	883		0.78
Music/Entarc		33	-1%	2	188	815	1,238		1.88
BOOK Social Content		38	-1%	1	108	718	738		0.88
Education		28	-1%	6	888	718	888		0.28
Internet		26	-1%	1	918	818	888		0.28
Job Vacancy		23	-1%	1	818	818	818		1.27
File Types		22	-1%	4	888	538	6,885		0.88
Business Services		17	-1%	3	818	538	788		0.78

## Conclusion

Threats to network security will continue to increase in the coming years. As enterprise networks and internal operating systems become more complex and more interdependent, the risk of intrusion, unexpected interactions and general software failure will increase and will add to the risks. IT professionals are losing their ability to keep up with these security threat increases due in large part to increasing demands on their time from the complex systems. In order to lessen the burden on IT and increase security, a proactive approach to managing Internet resources must be implemented by all organizations concerned with security threats. A solution that allows for security task automation allows for greater increase in network security without adding to an already overburdened IT administration. These automated content security tools help to effectively and efficiently secure network assets against threats from inside and outside an enterprise. Implementation of content security through Web filtering and reporting minimizes the legal liability risks, reduces wasted network bandwidth, and allows for real gains in productivity. The use of these advanced automated tools helps increase ROI, reduce IT workload, and improve the enforcement and efficiency of security, AUP and privacy policies.

## About Burstek

As an industry leader in the development and deployment of Enterprise Internet Management solutions, Burstek has been on the forefront of Internet security since 1997. Burstek's core products, bt-WebFilter and bt-LogAnalyzer have won numerous awards and accolades and are the first Internet content filtering and reporting applications developed specifically for Microsoft server technology. By combining leading edge software solutions with the most competent technical support in the industry, Burstek has built a loyal customer base of education, industrial, financial, legal, government, and military organizations across the globe, including many Fortune 100 companies. Burstek is part of Burst Technology, Inc. © 2012.