

Addressing the Need for Secure File Transfer

Whitepaper

Many factors are driving the growing need for secure file transfer in business today. Organizations recognize the value of using software specifically designed to make transferring files secure, convenient and reliable. Based on the Internet-standard File Transfer Protocol (FTP), Ipswitch's WS_FTP® Professional and WS_FTP Server provide a comprehensive and easy-to-use solution that eliminates the shortcomings associated with sending files via e-mail, as well as the tedious procedures required by Web downloads and command line FTP software.

The Need for Secure File Transfer is Growing

The ability to share information throughout an organization is essential in today's business environment. With the explosion of content creation and the availability of existing documents and information in electronic formats, there is simply more electronic data today than ever before. At the same time, the Internet has propelled both consumers and companies alike into a Web-enabled, information-driven era that depends on the ability to move files. In fact, getting up-to-the-minute information in the right hands is the key to maintaining a competitive advantage in businesses worldwide. The Internet has also enabled business to support contractors, vendors and partners, as well as an increasing number of remote employees, telecommuters, and distributed workforces that depend on file transfer every day.

But simply getting a file from one place to another is only half of the challenge. At a time when businesses and government agencies alike are increasing their focus on security, protecting the information as it is transferred has become paramount. The importance of security today is being reflected in increasing legislation, such as the federal Health Insurance Portability and Accountability Act (HIPAA), which requires the healthcare industry to implement strict security procedures to protect the confidentiality of patient information.

The challenge facing organizations today is to promote the sharing of data across the enterprise by providing their staff with a method for transferring files via the Internet that is secure, reliable and cost-effective. A secure method guarantees that sensitive data is protected at every point of the transfer, from start to finish. Reliability requires a solution that is based on established technology and puts the organization in full control of the entire transfer. Lastly, a cost-effective solution requires software that is inexpensive, easy-to-implement, and easy-to-use.

E-mail - Not Always The Best Option

The convenience of e-mail as a means for transferring files has contributed to its enormous popularity as a business tool. However, when security and efficiency are imperative, e-mail may not be the best choice. Unless files are explicitly encrypted, e-mail attachments are susceptible to being intercepted and viewed by malicious users as they are in transit. Any information in the files – from sales figures, to patient records, product designs, and legal records – is vulnerable.

In addition to the security risks, e-mail is also not well suited for transferring large files. If a company relies too heavily on sending large files via e-mail, the mail server performance will deteriorate, affecting the timely delivery of all e-mail large and small. To combat this, some administrators implement rules that disallow e-mail attachments over a certain size, such as 2MB. These policies further limit the practicality of e-mail for file transfer. Not only will large files not be delivered, but they will be returned to the sender, placing additional burden on the sender's e-mail system.

Also, e-mail attachments have the potential to be mistakenly blocked as spam. In such cases, the recipient may not even know that the file was sent, and the sender may not know that the file was not received.

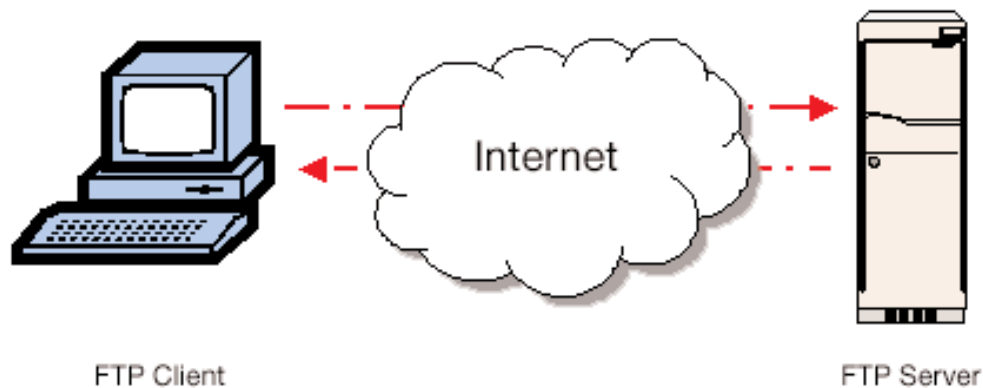
FTP – A Proven Technology

Short for File Transfer Protocol, FTP is the protocol used on the Internet for uploading and downloading files. Other protocols are capable of transferring files as well, including HTTP (Hypertext Transfer Protocol) and SMTP (Simple Mail Transfer Protocol). HTTP is used to transfer Web pages from a server to a user's browser and SMTP transfers electronic mail across the Internet. Like these technologies, FTP uses the Internet's TCP/IP protocols to enable data transfer. However, unlike HTTP and SMTP, FTP is designed specifically for transferring files of all kinds— large and small, binary and text – directly from one system to another. FTP transfers can be configured to take place over secure communication channels, by using a Virtual Private Network (VPN), SSH or 128-bit Secure Socket Layer (SSL) for example, thereby eliminating the security concerns inherent in e-mail. With a history that dates back over 30 years, FTP is a mature and proven technology; and effective FTP implementations enable businesses to transfer files of all types and sizes securely, efficiently and conveniently.

Not All FTP Software is Created Equal

FTP transfers require two software components: an FTP client to initiate a connection and an FTP server to accept the connection. While all FTP clients and servers must implement the same basic protocol, there is wide variation in the effectiveness of FTP software as a business tool.

Most popular Web browsers can also act as FTP clients, enabling users to download files from FTP



servers. Like e-mail clients, the ubiquity of Web browsers make them a popular choice for FTP downloads. However, just like e-mail clients, Web browsers are designed and built for another purpose, and thus put the end-user at a disadvantage when it comes to transferring files. First, downloading and storing files with a browser is tedious. For example, it is time consuming to switch back and forth between the browser view and the Windows Explorer view to check on the status of downloaded files. Uploading files via a Web browser is even more cumbersome. Second, browsers can only download single files. This presents a problem when you want to download multiple files or whole directories at once. If a user needs multiple files, he or she must request each one sequentially, specifying a path name for each. Also, saving FTP download sites in a browser requires the user to bookmark each one and then sort through potentially hundreds of entries later.

Furthermore, browsers do not offer the ability to move files within or between FTP sites. The only alternative is to download files from an FTP site to a temporary location on a computer or network drive, and then upload them to another FTP site or different folder on the same site. And, in addition to being inconvenient for file transfer, browsers are also inefficient. For example, interrupted file transfers cannot be resumed using a browser – the entire transfer must be restarted, even if it was 99 percent complete before it was interrupted. Finally, browser-based FTP can be significantly slower than using an FTP client.

Note too, that many of these limitations also apply whether the browser is downloading files via FTP or HTTP. Plus, since HTTP is designed for transferring formatted text and graphics, there is typically more overhead associated with an HTTP file transfer than an FTP transfer.

One alternative to using a Web browser as an FTP client is the command line interface FTP client found on most Windows and UNIX operating systems. While these clients offer the advantage of being specifically designed for FTP, they require knowledge of FTP commands to use, and extensive knowledge to use them proficiently.

FTP Servers, like their counterparts on the client side, vary greatly in the capabilities they offer. Similar to browsers and command-line clients, businesses tend to use what is at hand instead of looking for better alternatives. For example, many businesses that use Microsoft Internet Information Services (IIS) as a Web server turn to the FTP server included with IIS. Although many find the IIS FTP server complex to configure and administer, and despite its vulnerability to denial-of-service attacks in the past, many organizations simply do not take the time to consider the real costs of maintaining their existing FTP server.

The Complete Solution – Ipswitch's WS_FTP Professional and WS_FTP Server

Ipswitch offers a complete client and server FTP solution that fully leverages the power and efficiency of FTP for file transfer, the simplicity of a graphical Windows interface, and advanced capabilities afforded by a comprehensive, end-to-end solution. As one of the most popular and powerful FTP clients available, WS_FTP Professional provides business users with a wide range of advantages over Web browsers and other FTP client alternatives. WS_FTP Server also offers a broad range of features that set it apart from other FTP servers.

When used together, WS_FTP Professional and WS_FTP Server provide businesses with a complete FTP solution supported by enhanced security capabilities. WS_FTP Professional and WS_FTP Server enable encrypted authentication that provides username and password security even when not running over SSL. In addition, support for Clear Command Channel (CCC) in WS_FTP Professional, which instructs the FTP client to revert to clear text after user authentication has been performed, provides an FTP solution that is more compatible with firewall-protected environments.

Product Definitions



WS_FTP Professional

WS_FTP Professional is the market leader in Windows-based FTP client software.



WS_FTP Server

WS_FTP Server is a full-featured, secure FTP server for Windows. Users can connect to the server via the Internet using WS_FTP Professional to download and upload files.

The table shown below highlights some of the benefits that organizations realize when they employ the WS_FTP solution from Ipswitch.

Ipswitch WS_FTP Professional and WS_FTP Server Solution

Secure	Easy to Use
<p>The WS_FTP solution provides 128-bit encryption — the highest commercially available encryption technology — making it the most secure solution for organizations that require confidentiality when transferring files over the Internet.</p> <p>The WS_FTP solution was the first to offer a completely secure file transfer application for Microsoft Windows with SSL support in the client and server.</p>	<p>With an intuitive Windows-based graphical user interface, the WS_FTP solution is easy to configure, and requires no expensive training.</p> <p>WS_FTP Professional displays thumbnail views of the files on the local PC and the remote host, simplifying the process of identifying, editing, and sharing image files, and enhancing ease of use.</p>
Powerful	Efficient
<p>WS_FTP Professional can synchronize directories between local systems and remote FTP servers, simplifying the process of keeping remote sites up-to-date, and ensuring the accuracy of the data delivered to customers.</p> <p>WS_FTP Professional offers scripting capability, which allows multiple file transfers to be executed with a single action, reducing the time it takes to update information on an FTP server.</p>	<p>WS_FTP Professional's Active Edit enables 'real-time' updating of information to the FTP server, eliminating the need to manually upload a file after every edit, and streamlining the update process.</p> <p>The WS_FTP Solution resumes failed transfers automatically, requiring no user intervention, and helping to ensure successful transfers.</p>
Automated	Cost Effective
<p>With the WS_FTP Professional scheduler, organizations can automate the file transfer process. User productivity is increased, because they no longer have to manually upload and download files to an FTP Server.</p> <p>Further enhancing productivity, Auto Reconnect retains your client and server settings and reloads them upon launching WS_FTP Professional, eliminating manual authentication to the most recently viewed FTP site.</p>	<p>Neither WS_FTP Professional nor WS_FTP Server require dedicated machines; they can be installed virtually anywhere, conserving hardware resources for applications that require them.</p> <p>As a cost effective file transfer system, the WS_FTP solution can save an organization thousands of dollars over competing solutions, while providing a substantial ROI.</p>

How WS_FTP Professional and WS_FTP Server Are Used Today

WS_FTP Professional and WS_FTP Server protect critical and sensitive file transfers with the highest level of encryption commercially available, and as such offer an ideal solution for organizations that require confidentiality when transferring files over the Internet. The security, reliability and ease-of-use of this solution provide value to organizations in virtually all industries.

Government

Security is a key concern at all levels of government. Today, government agencies require a high level of security for file transfers, making 128-bit encryption and support for SSL/SSH an absolute necessity. Ipswitch solutions already provide this level of support, and Ipswitch is working towards National Institute of Technology (NIST) FIPS 140-1 and 140-2 compliance for WS_FTP in accordance with U.S. Department of Defense (DoD) directives¹.

Healthcare

In the healthcare industry, the Health Insurance Portability and Accountability Act (HIPAA) requires that all access to patient information be secured and logged. With 128-bit encryption and extensive logging capabilities, WS_FTP Professional and WS_FTP Server are HIPAA-compliant file transfer solutions that are used to reliably and securely move patient data files between remote offices, such as hospitals, medical clinics, medical transcriptionists, billing and claims agencies, insurance companies, and doctor's offices.

¹ DOD Directive 8500.1 Information Assurance (IA), dated October 24, 2002 and DODI 8500.2 Information Assurance (IA), dated February 6, 2003.

Finance

Banks, brokers, and trading exchanges rely on secure file transfers to exchange sensitive financial records between offices. This enables financial institutions to protect the privacy of individual consumers as well as maintain tight control over corporate financial information.

Retail

In retail, up-to-date data is crucial in an increasingly competitive environment. Retail stores use WS_FTP Professional and WS_FTP Server for countless common file transfer tasks. For example, WS_FTP Professional is used to automatically update the corporate office with the daily sales receipts or exchange sales and inventory data with an SAP system at company headquarters. Some retailers use WS_FTP Professional's scheduling capability to transfer financial information, inventory, and POS sales data to an FTP server at corporate headquarters on a weekly, daily, or even hourly basis. Companies also use FTP to integrate ordering and inventory management system with the central accounting and financial applications at company headquarters.

Remote Employees and telecommuters

As more businesses make use of telecommuters and remote contractors, the need for efficient and secure file transfers becomes more acute. Mortgage brokers and insurance agents, for example, can send completed enrollment forms and applications directly from their laptops to a central processing area at the home office. Also, recurrent tasks can be scheduled so they take place automatically at the same time every day or week.

Any organization that needs to transfer large files across the Internet

Creative agencies frequently need to exchange large graphic files -- logos, advertisement slicks, high-definition graphics and more -- with their clients. Magazine and newspaper publishers receive submissions, photos and advertising. Engineering firms need to transfer large CAD/CAM files. WS_FTP Professional and WS_FTP Server provide all of these businesses with an efficient and cost-effective way to transfer their large files.

An Enterprise File Transfer Solution

Businesses spend millions of dollars assembling data into documents, databases, images and numberless other formats. Most businesses recognize that the ability to move data files is as critical to the business as the data itself. Surprisingly few however, think critically about how they might improve upon using less-than-optimal means to transfer files. Many continue to use inefficient and insecure methods, such as e-mail, or outdated FTP products. Ipswitch's WS_FTP Professional and WS_FTP Server provide an enterprise-quality FTP solution that is cost-effective, secure and easy-to-use -- for all kinds of files, across all types of industries.

For more information on WS_FTP Professional and WS_FTP Server, visit:

<http://www.ipswitch.com/products/file-transfer.html>.

About Ipswitch

Founded in 1991, Ipswitch, Inc. develops easy-to-use, affordable, software products that extend mission-critical IT resources for businesses and improve efficiency for consumers. Its product family includes WS_FTP Professional, the world's most popular FTP client; WS_FTP Server with 128-bit SSL encryption, the first industrial-strength, full-featured FTP server for Windows NT/2000/XP; WhatsUp Gold, a leading network mapping, monitoring, notification and reporting tool; IMail Anti-Virus, an add-on product powered by Symantec's CarrierScan™; and Ipswitch Instant Messaging, a secure Instant Messaging solution specifically designed for businesses.

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