

Secure Communications and Reduce Risk.

Maintain Control of File Transfers.

You're increasing productivity by facilitating the exchange of corporate data.

You're allowing file transfers with TCP/IP across your z/OS network...

THE SITUATION

TRANSFERRING FILES OVER THE NETWORK

The massive growth in mobile computing, Internet, Intranet and Extranet services has resulted in a huge user demand to communicate with host systems 24/7. Partly to support this demand, the popularity of Internet Protocol (IP) has grown exponentially on z/OS as the protocol of choice to form the backbone of network communications for most enterprises.

Although some users require nothing more than simple terminal sessions, many others also need file transfer services. The standard File Transfer Protocol (FTP) for Transmission Control Protocol/IP (TCP/IP) is a popular choice since it is freely available on all platforms and is simple to use.

FTP is an Open Edition application that runs on Unix System Services under z/OS. Unfortunately, along with the benefits come some inherent weaknesses that impact general usability and force many enterprises to withhold it from the user community.

SECURITY EXPOSURE

FTP to z/OS connectivity is vulnerable since standard z/OS security routines do no more than validate the logon user id and password, as well as check that the user id has been defined with a UNIX security segment. Once validated, the user is granted access to all datasets defined within his security profile via a Client/Server FTP connection. This means that, via the FTP session, the user can:

- Retrieve any dataset with access defined as 'Read'
- Retrieve and overwrite any dataset with access defined as 'Write'
- Retrieve, overwrite, rename or even delete any dataset with access defined as 'Control.'

Furthermore, via FTP, a user can also access any files with 'universal access.' This means that users with access to UNIX services, perhaps via UNIX Print services and with limited Read/Write access to specific data files, can gain access to z/OS without any restriction. This exposes both corporate data assets and key system files to potential abuse. The same user can also attempt to issue any FTP command, submit any job to Job Entry Subsystem (JES) and transfer files to anyone on the Internet or Intranet.

AUDIT LIMITATIONS

Some corporations are left completely unaware of FTP activity in their environment since FTP does not report or log its activities other than through the creation of System Management Facility (SMF) records. And, since many installations fail to collect SMF data, the following may occur:

- Files can arrive or disappear without notice
- Users can log on and issue a series of commands without trace if no file transfers take place
- Users cannot assess the volume of FTP activity
- Users cannot assess the type of FTP activity conducted.

Now ensure the security of your data by monitoring and auditing transfers in real time

with ZEN FTP CONTROL - FTPALERT

AUTOMATION RESTRICTION

On z/OS, FTP runs as an Open Edition application under Unix System Services (USS). Consequently, it is unable to communicate the results of FTP activity directly to system consoles. This is a significant restriction for enterprises where Automated Operations (AO) play a key role in meeting user service levels. Since the AO application is unable to see the success or failure of any FTP activity, users must either revert to manual intervention or abandon the use of FTP within the automated environment.

THE NEED FOR ZEN FTP CONTROL – FTPALERT

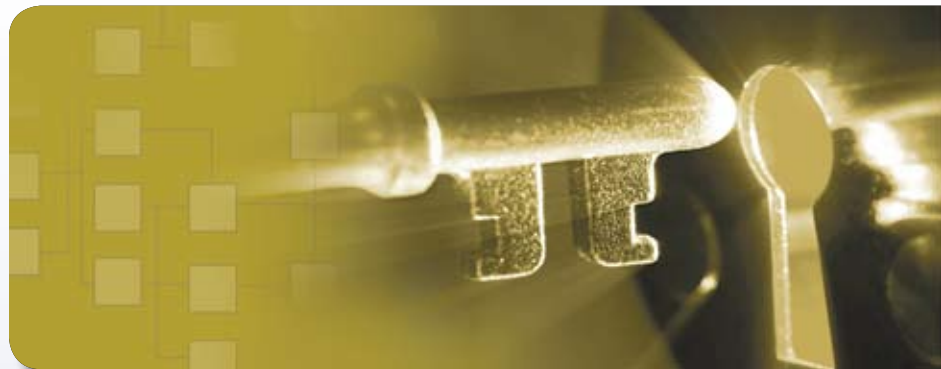
In short, on the z/OS platform, the implementation of FTP under USS leaves installations exposed and with inadequate management control. Personnel files, patient information, payroll details and confidential corporate records can be FTP'd from your company, without your knowledge and sent anywhere, to anyone. Files may be redistributed or modified and reinstated – and you will have no record of the associated activity.

To overcome FTP's shortcomings, William Data Systems developed ZEN FTP CONTROL – FTPALERT, also known as ZEN FTP CONTROL, a solution designed to let you gain back operational control of file transfers, enhance your ability to audit and report all FTP usage and provide your clients with an invaluable and secure service.

ZEN FTP CONTROL

ZEN FTP CONTROL is a specialized tool that helps corporations increase productivity by opening the gates to file transfers, without compromising the security of their biggest asset – data. The solution overcomes all of the traditionally limiting factors of FTP on the z/OS platform which prevent its deployment in production systems. It provides efficient monitoring and auditing of all FTP activity, in real time.

THE SOLUTION



INNOVATIVE CLIENT VIEW

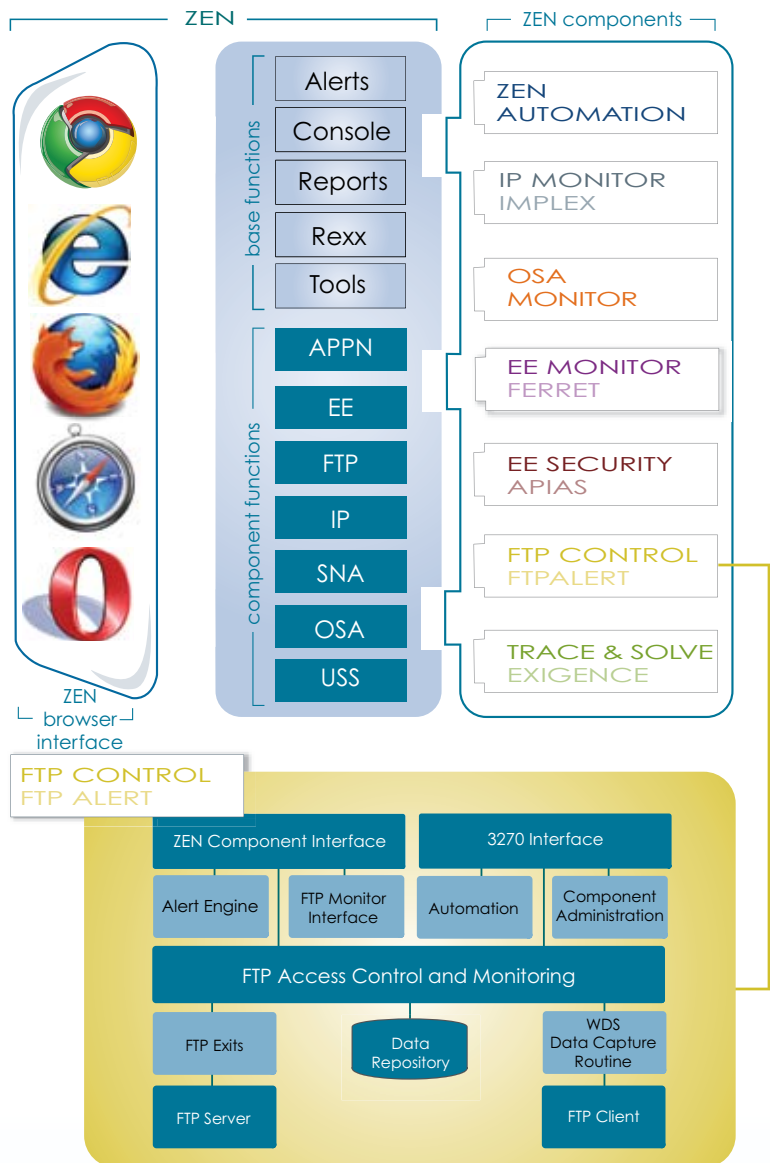
As a major component of the ZEN suite of Network Management solutions, the ZEN FTP CONTROL browser interface benefits from the innovative design provided by the ZEN Presentation Manager. No special desktop software is required and unlike other browser-based solutions, it has the fundamental advantage of not requiring a separate web server.

A web server is usually part of a three-tier system comprised of a network data collector on the z/OS host, a separate web server where the web pages are generated and a client for data display. A three-tier approach has many drawbacks. It adds cost (additional hardware, software and configuration), adds complexity to the set-up and maintenance of the monitor system, adds overhead (additional bandwidth load from the extra connections) and provides an additional point of failure.

The ZEN FTP CONTROL user interface is part of a two-tier architecture that takes advantage of the core strengths of ZEN – namely, efficient, high-speed and low-overhead data delivery. Proving that less really is more, this innovative two-tier approach has a number of benefits over three-tier systems as it:

- Reduces costs without the need for additional hardware or software
- Simplifies implementation since client software is not required
- Deploys rapidly, providing immediate access to ZEN FTP CONTROL data from a standard web browser
- Necessitates little or no processor overhead since all graphical formatting is performed inside the browser
- Provides a single interface for all your Network Management needs
- Is SMP/E maintainable, enabling rapid application of new features and services

ZEN Architecture



TIGHTEN ACCESS CONTROL

ZEN FTP CONTROL fills a major gap in FTP to Host connectivity. ZEN FTP CONTROL allows Security Authentication Facility (SAF)-level security to be applied to FTP activities under z/OS whether via Resource Access Control Facility (RACF), CA Top Secret® or CA ACF2™. Security administrators define a special facility called 'FTPA_' to their security system. This ensures users are only allowed access to the system from the FTP environment if they have been previously granted access to the 'FTPA_' facility. Once access to the system has been granted, individual FTP Client and FTP Server commands can be defined as secure resources. This means, for example, that authority to invoke an FTPA_GET or FTPA_PUT command will be verified before the command can be executed. This is extended to full, file-level security for Client and Server commands by incorporating the dataset name in the SAF call issued by ZEN FTP CONTROL.

THOROUGHLY AUDIT FTP ACTIVITY

ZEN *FTP CONTROL* monitors all z/OS FTP activity and records the monitored data in its History file. Data in the ZEN *FTP CONTROL* History File can be:

- Extracted and reported via ZEN or users' batch reporting routines
- Extracted as Comma-separated Values (CSVs) for reporting in spreadsheet format
- Browsed and reviewed on line.

ZEN *FTP CONTROL* also audits all activity in its own menu-driven system to prevent unauthorized tampering with configuration parameters. An online display shows all internally and externally generated activity, as well as user sign-on and sign-off activity.

Typical Audit Questions Relating to FTP Usage

AUDITORS QUESTIONS	WITHOUT FTPALERT	WITH FTPALERT
How are files transferred between the host system and other computers?	FTP	FTP
If a file is transferred do you have a log of that transfer and the computers that were involved in the transfer?	No	YES – All successful and unsuccessful FTP transfers are logged to the z/OS system console and to the FTPAlert history file. File names and computer addresses are logged.
Are reports of file transfers available for review?	No	YES – The FTPAlert history file is used by the FTPAlert post processing programs that provide reports of all transfers and FTP commands issued including user id's. Online review is also available.
How are failed attempts to transfer files identified to the system?	They are not identified	FTPAlert sends messages to the z/OS system console and to the FTPAlert history log.
What security is in place to restrict the transfer of files to and from the host?	None	Users who require the ability to FTP files must first be identified in our security software (RACF, etc.) before any transfers can take place.
What user id's and passwords are used to implement security policies?	TSO	Current TSO user id's can be granted FTP authority. By default they do not have FTP authority.
How do you restrict a user's ability to transfer data files to and from the host computer?	There is nothing in place	Data file transfer is restricted through the use of FTPAlert in association with our current security software (RACF, etc.), and implemented company security policies.

MEETING COMPLIANCE REQUIREMENTS

ZEN *FTP CONTROL* ensures corporations meet their mandated compliance obligations in an FTP environment. The Federal Information Security Management Act (FISMA), the Health Insurance Portability and Accountability Act (HIPAA) and the Sarbanes-Oxley Act are all examples of mandates that impose implementation of tighter corporate governance policies on organizations to ensure:

- Valuable data and system assets are protected from unauthorized access
- An audit trail of file transfer activity is available
- Tighter application integration and control is achievable.

With ZEN *FTP CONTROL* your company is prepared for potential compliance audits.

FTP CONTROL ZEN-enabled User Interface



ENABLE FTP-TRIGGERED AUTOMATION

ZEN FTP CONTROL enables pre- and post-processing rules to be defined for FTP sessions to the z/OS FTP server. This capability greatly enhances FTP flexibility as a datacenter resource by confirming preparatory actions have been successfully completed prior to executing a command and invoking appropriate post-processing actions once the command has been completed. This could include triggering job-scheduling systems to initiate dependent jobs or automatically notifying users of a failed transfer. These messages may contain the name of the file received, the size of the file, the user who sent the file and the source IP address.

COMPREHENSIVE HELP SYSTEM

The online help in ZEN FTP CONTROL provides detailed information on RACF return codes, numeric FTP Server response codes, FTP client commands and ZEN FTP CONTROL messages. It also includes a comprehensive glossary of network terms and abbreviations.

Comprehensive Help Available

Zen Help

FTPALERT - Secure and Audited FTP

If you are new to the ZEN FRAMEWORK it is recommended that you read through the [ZEN Help](#) since it provides some fundamental information without which you will not be able to get the most out of the interface. Every panel displayed using ZEN has Help available - just click the Help icon in the top left corner of the panel or right mouse-button click anywhere in the panel and select Help.

FTPALERT enables you to use z/OS FTP in a completely secure and fully audited way, removing all the worries that users will be able to access and even change data to which they should not be permitted access. It also provides real-time monitoring of all FTP server and client activity as well as an integrated on-line automation function so that other z/OS jobs can be driven dependent upon the status of FTP processes. Here are just a few FTPALERT highlights:

FTP Security

- * FTP activities defined directly to the z/OS SAF system
- * FTP command and dataset access protected at the user level
- * Supports user access control for multiple FTP server ports

FTP Automation

- * Pre-processing and post-processing rules can be defined for server FTP sessions
- * Enables automation systems to initiate FTP result-dependent jobs
- * Confirm preparatory actions have been successfully completed
- * Automatically send alert messages for failed transfers
- * Supports z/OS Confidence of Success Indicator

FTPALERT Auditing

- * Monitors all [server](#) and [client](#) sessions with or without [filtering](#) and provides [busiest FTP users](#) panels
- * You can filter FTP session panels by date, time, user, IP address, dataset, byte count and/or byte rate
- * Displays CPU and elapsed transfer times, I/O count, bytes transferred, data transfer rate
- * Highlights error return codes
- * Displays FTP commands issued by user for both [server](#) and [client](#) sessions
- * Full details for all [server](#) and [client](#) FTP commands can be displayed
- * Monitors FTP activity by dataset

Help is also available for [FTP Client Commands](#) and [FTP Server Response Codes](#), and you can also look up the meaning of FTPALERT messages from 001-199 [here](#) and from 200-999 [here](#). FTPALERT's in-storage [audit log](#) of FTP activity may also be viewed. A [glossary](#) of abbreviations and acronyms is available and you can also browse through a complete list of the FTPALERT Help panels [here](#).

FEATURES

AUTOMATION

- Enables pre- and post-processing rules defined for FTP sessions to the z/OS FTP server
- Allows job-scheduling systems to initiate dependent jobs
- Confirms preparatory actions have been successfully completed
- Sends a message alerting users of failed transfers – automatically
- Includes message details: file name, file size, sender, source IP address
- Supports z/OS 'Confidence of Success' indicator

FTP SECURITY

- Defines all FTP activities directly to the z/OS security system (RACF, TopSecret or ACF2)
- Provides granular FTP command and dataset access by user
- Prevents unauthorized file tampering
- Supports user access control for multiple FTP server ports

FTP AUDIT COMPLIANCE

- Monitors all inbound (Server) and outbound (Client) session activity
- Filters historical data by date, time, user, command or dataset
- Displays for each transfer:
 - Elapsed and CPU transfer times
 - Input/Output (I/O) count
 - Number of bytes transferred
 - Data Transfer Rate
 - Return Code
- Displays FTP commands issued by user
- Monitors FTP activity by dataset
- Provides "busiest users" display which provides the top 40 FTP server and client system users

BENEFITS

- Increases productivity and communication without compromising security
- Secures your corporate data in real-time by providing security, monitoring and notification
- Assists with audits of regulatory compliance
- Enables the automation of IBM FTP, standard with IBM z/OS
- Provides a user-friendly interface with easy-to-interpret data
- Minimizes resources: ZEN *FTP CONTROL* solution has a small foot-print and allows you to choose encryption selectively
- Allows z/OS FTP usage to be consistent with site security policies as administered through SAF
- Includes exceptional customer support
- Developed by William Data Systems, experts in IBM z/OS network management solutions

DOWNLOAD THE FREE FTP ACTIVITY CHECKER

Management of FTP is so poor that it could be used without your knowledge. And, if you think you have prevented FTP usage by disabling your FTP server, beware. FTP clients executed via Time Sharing Option (TSO) or batch can trigger FTP activity. The exposures from FTP client activity are every bit as dangerous as those associated with the FTP Server. If in doubt, run the free William Data Systems FTP Activity Checker. Simply download the utility from www.willdata.com. It will check for all FTP activity via your z/OS system. You have nothing to lose – except your data.

**Secure Communications and
Reduce Risk.**

**Maintain Control of File Transfers
with ZEN *FTP CONTROL*.**

SUPPORT

As confirmed through an independent survey of William Data Systems customers, we have built an exceptional reputation for outstanding customer support. We provide comprehensive, effective and highly responsive support for WDS products at all stages of their lifecycle.

In addition, a wide range of Professional Services and training programs are available dependent on user demand. These can be held at WDS offices, customer sites or can be managed remotely via web conferencing.

ZEN SOLUTIONS

ZEN FTP CONTROL is a prime component of ZEN, the William Data Systems suite of network management solutions. ZEN provides a comprehensive insight into z/OS network operations by offering targeted solutions, adapted to meet your unique business needs.

The suite consists of the ZEN Presentation Manager, a central interface that enables users to integrate and operate tools easily, and a selection of targeted solutions that provide IT performance management, network optimization, monitoring, tracing, automation, reporting and security. ZEN solutions are critical to maintaining business continuity and service levels of z/OS networks.

ABOUT WDS

WILLIAM DATA SYSTEMS

William Data Systems (WDS) is a pioneer of specialized z/OS network management solutions. Established in 1993, we are an independent global organization that provides innovative solutions to run mainframe networks efficiently and securely. ZEN, the WDS network management suite, offers a selection of user-friendly and cost-effective solutions to meet your unique needs. To overcome both business and technology challenges, WDS provides customers with licensing and pricing terms that are as flexible as our solutions.

WDS supports customers worldwide in sectors such as finance, banking and manufacturing, and our client list includes Fortune 100 companies and government agencies. WDS is an IBM Business Partner and a member of the IBM PartnerWorld for Developers program. We are committed to the global z/OS networking market and to leading the way with innovative solutions through the latest advances.

**To learn more about
WDS ZEN solutions,
for support or to contact
our offices, visit
www.willdata.com
or call 877-723-0008**

(toll-free for U.S. domestic calls)



The IBM logo, the Business Partner emblem, z/OS, VTAM and SNA are trademarks of International Business Machines Corporation. ZEN, the ZEN logo, ZEN IP MONITOR – IMPLEX, ZEN EE MONITOR – FERRET, ZEN OSA MONITOR, ZEN TRACE & SOLVE – EXIGENCE, ZEN FTP CONTROL – FTP-ALERT and ZEN EE SECURITY – APIAS are trademarks of William Data Systems Ltd. All other brand and product names are trademarks or service marks of their respective holders. Copyright © 1999-2011 William Data Systems Ltd. All rights reserved.

Brochure code: ZFC-TEC-0111