

## Secure your IBM i Data in Motion

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IBM i customers need to meet regulatory requirements to secure the transfer of data over the Internet and on internal networks. Assure Secure File Transfer provides secure FTP (SFTP) and Secure Shell (SSH) transfer support to meet these regulations. Additionally, PGP Command Line 9 encryption is available as an added option.

Assure Secure File Transfer can encrypt any file type including Db2 database files (externally described files), flat files (internally described files), IFS files, Save Files, and spooled file reports. PGP encrypted files can be received from any other system including Windows, Linux, UNIX, IBM AIX, Sun Solaris, HP-UX, and IBM z (Mainframe).



## Benefits

### Improve Security

Encrypt and decrypt on your IBM i without transferring data in the clear to external servers

### Enforce Security Policies

Automatically enforce data protection with centrally managed policies

### Accelerate Deployment

Start encrypting data automatically without programming

### Meet Compliance Reporting Requirements

Satisfy PCI, HIPAA, GLBA, Privacy Notification and other data security regulations that require encrypted transfer of your most sensitive data. Record all encryption and file transfer activity to meet compliance reporting requirements.

### Transfer Files Between Operating Systems

PGP Command Line 9 provides cross-platform, standards-based encryption that works with all other PGP solutions

## Secure FTP

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Assure Secure File Transfer implements the full specification for secure SSL FTP providing a firewall-friendly implementation of encrypted FTP. Assure Secure File Transfer conforms to Internet standard RFC2228. Many financial institutions are now requiring that companies use encrypted FTP even when they have encrypted a file with PGP. Assure Secure File Transfer provides the automation and command support you need to meet these requirements.

Assure Secure File Transfer fully integrates with IBM i's security strategy by using the IBM Digital Certificate Manager for certificate management and SSL communications. This means that you will have full support for IBM secure audit journaling and native IBM i security controls. It also means that Assure Secure File Transfer will use the IBM SSL accelerator hardware card to speed up SSL encryption if it is installed in your IBM i server. (IBM Digital Certificate Manager is a no-charge licensed product that comes with your IBM i operating system.)

Secure FTP is fully supported in the Assure Secure File Transfer automation features. You can easily transmit any file by copying it to a library managed by Assure Secure File Transfer. You can also automatically transmit any file in an IFS directory including files in Windows Networking folders or UNIX NFS directories. To automate receiving files from remote FTP servers the Assure Secure File Transfer's auto-scan facility can periodically connect to an FTP server and pull new files to your IBM i.

## PGP Encryption

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Pretty Good Privacy (PGP) is the de facto standard for secure file encryption at banks, insurance companies, benefits providers, medical insurers and many other Enterprise service providers. Assure Secure File Transfer implements industry standard PGP, based on Internet standard RFC2440. Today hundreds of Assure Secure File Transfer users are encrypting and decrypting files with PGP on the IBM i platform.

Assure Secure File Transfer can encrypt any file type including Db2 database files (externally described files), flat files (internally described files), IFS files, Save files, and spooled file reports. PGP encrypted files can be received from any other system including Windows, Linux, IBM AIX, Sun Solaris, HP-UX, and IBM z (Mainframe).

PGP encryption can be automated using one of several automation facilities in Assure Secure File Transfer, or you can use the PGP commands for encryption, decryption, key management, and file signing. The commands and APIs let you extend encryption into any business application. These automation functions let you process decrypted files directly into your applications with no human intervention, giving you a 24/7/365 strategy for encryption.

PGP key management is fully implemented on your IBM i platform and there is no need for external key servers or key stores. You can maintain multiple key stores for maximum flexibility, and there is no limit to the number of keys you create or import.

## Secure Shell (SSH) SFTP

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Secure shell (SSH) is a UNIX application that provides for secure and encrypted command line, telnet, file transfer, and file copy functions. Many companies use the secure FTP (often called SFTP) portion of SSH to protect their data as it moves between servers on a network or to outside servers at a customer or vendor's location.

Assure Secure File Transfer implements the IBM OpenSSH application with some additional features for automation, compliance logging, and password controls. You can send and receive files using the Assure Secure File Transfer implementation and meet compliance requirements for encrypted transfer.

Assure Secure File Transfer provides for full automation of sending and receiving files, and provides full support for compliance logging.

## Intelligent Firewall Negotiation

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When you exchange files with a company outside of your network, the file transfer session must pass through your company's firewall, and then through a second firewall that protects the remote company's network. This multiple-firewall configuration is very common and can present special problems for encrypted FTP sessions. Assure Secure File Transfer implements multiple features to help you solve firewall negotiation issues.

The Assure Secure File Transfer SSL FTP implementation provides support for the Clear Command Channel (CCC) command. After a password has been authenticated by the remote FTP server, the connection can be decrypted to allow the firewall to handle the FTP transfer. This strategy is used by many banks and better FTP solutions.

When a remote FTP server does not support the CCC command, Assure Secure File Transfer provides extended functions to allow the FTP session to continue. These functions are called "Intelligent Firewall Negotiation."

## Automated Transfer

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Assure Secure File Transfer provides several automation functions to help you exchange files without human intervention. The library scan function provides you with the ability to define one or more libraries to be monitored for file transfers. You only need to copy a file into the library and Assure Secure File Transfer completes the entire FTP session including any encryption that is needed.

The Directory Scan function provides the same automation for files in IBM i IFS directories. Assure Secure File Transfer can encrypt and transfer any file in an IFS directory, and automatically archive it. The directory scan facility supports normal IFS directories as well as Windows Network folders, UNIX Network File System (NFS) mounted directories, QDLS folders, and remote IBM i directories through the QFileSvr.400 directory.

Lastly, the Assure Secure File Transfer auto-scan facility can connect to any number of remote FTP servers and automatically pull files to your local system where they can be processed into your business applications.

## Centralized Hub Configuration

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Most IBM i customers run applications on Microsoft Windows, Linux, and UNIX servers. Assure Secure File Transfer can provide a centralized hub for all of your file transfer activity. With the use of Windows Networking and UNIX NFS, Assure Secure File Transfer can pull files from your Windows, Linux, and UNIX servers and send them to vendors and customers. When Assure Secure File Transfer receives files from remote systems it can decrypt and save them to Windows, Linux, and UNIX systems. This approach provides for a hub-and-spoke configuration.

## Compliance Logging

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Assure Secure File Transfer creates audit trails of all file transfer activity and provides reports for compliance monitoring. You can meet PCI, HIPAA, Sarbanes-Oxley, and other data security regulations that require monitoring of system activity.

## Supported Standards

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Assure Secure File Transfer implements encryption and file transfer in alignment with a variety of open standards. The PGP option is compatible with the OpenPGP standard documented in RFC2440. The secure SSL FTP solution is compatible with RFC2228. The Secure Shell SSH SFTP solution is based on the OpenSSH implementation which is a proposed Internet standard.

# Compatibility

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Assure Secure File Transfer is compatible with a wide variety of banks, insurance companies, authorization networks, benefits providers, medical claims services, and EDI networks. The following is a partial list:

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| <b>Banks:</b>         | Bank of America, Wachovia, Wells Fargo, US Bank, State Street, ABN Amro, CitiGroup, JPMorgan Chase, BankOne, and others. |
| <b>Medical:</b>       | Blue Cross Blue Shield, State of California, State of Florida, Hewitt Associates, ZirMed, WebMD, and others.             |
| <b>Services:</b>      | Merrill Lynch, Fidelity, ADP, Frick, TALX, eTRAFX, AllTel, Bell South, and others.                                       |
| <b>Networks:</b>      | GXS, Inovis, Sterling, IBM Advantis (now GXS), Pantellos, and others.  |
| <b>Authorization:</b> | Visa, American Express, ADS, Chase Paymentech, First Data, ValueLink, and others.  |