

Secure and Automate Your File Transfers for IBM i

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Introductions



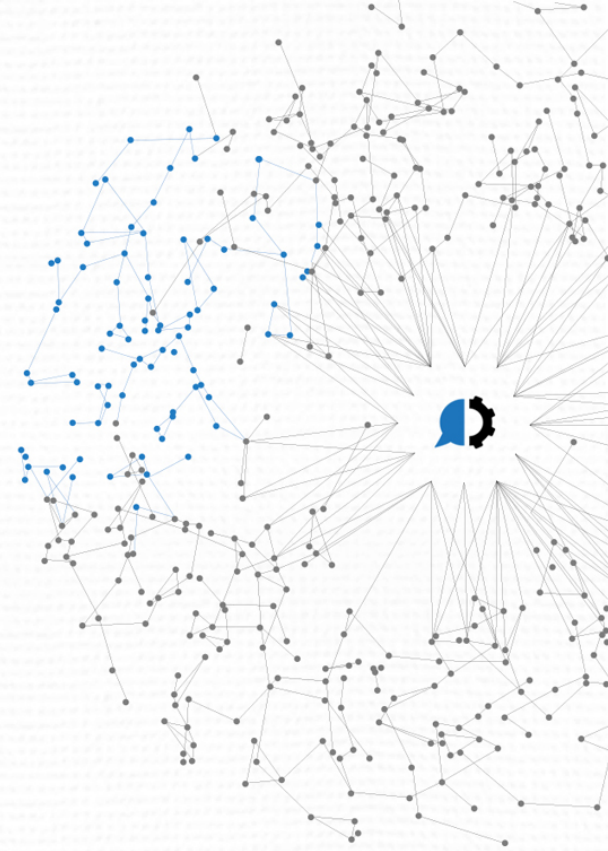
Heath Kath

Senior Solution Consultant, HelpSystems



Agenda

1. About HelpSystems
2. Common File Transfer Challenges
3. Best Practices for Secure File Transfers
4. GoAnywhere MFT Overview
5. Live Demonstration
6. Q&A



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About HelpSystems

- ▶ Over 35 years in business
- ▶ 650+ employees in twenty offices around the world
- ▶ Focuses on security, automation, and operations management
- ▶ Ensures excellent customer service in all areas of business
- ▶ Maintains active R&D team for GoAnywhere solutions
- ▶ Almost 99% of GoAnywhere customers renew their maintenance each year
- ▶ Member of the PCI Security Standards Council



Common File Transfer Challenges

1. Human Error

For example, when a user:

- Forgets to perform file transfers at the correct times
- Sends the wrong files
- Sends files to the wrong trading partner
- Doesn't protect the files properly
- Doesn't have coverage to send the files when on vacation or sick



Common File Transfer Challenges

2. Inefficient Methods

These methods include:

- Old technology like FTP or PC tools
- Traditional emails
- Manual scripts that need a dedicated IT person to maintain them
- Time-consuming processes; a lack of automation for batch transfers



Common File Transfer Challenges

3. Lack of Encryption

This often includes:

- Sensitive files that are kept in the “clear” on servers and laptops
- Sensitive files that are sent as unsecured email attachments
- Users that share files “in the cloud” without security controls (e.g., Dropbox)
- A lack of internal policies to address file sharing and transfer (this is a liability risk)



Common File Transfer Challenges

4. No Error Alerts or Audit Logs to Meet Compliance Requirements

For example:

- You're not always alerted when file transfers fail or succeed
- If logs are generated, they're hard to find and filter for your requirements

It's hard to meet data privacy regulations (e.g., PCI DSS, HIPAA, the GDPR) without centralized logs.



Best Practices for Secure, Efficient File Transfers

1. Use secure protocols like SFTP to encrypt files in transit (**do not use standard FTP**).
2. Encrypt files at rest (you can use OpenPGP or AES).
3. Set up batch workflows to automatically process files.
4. Generate detailed audit trails.
5. Use a managed file transfer (MFT) solution to simplify and protect file transfers from a centralized interface.



Introducing GoAnywhere MFT



GoAnywhere MFT: Overview



Access Anywhere



Web Browser,
Command Line, API...

- Workflow Automation
- Encryption
- Compression
- Data Translation
- Scheduler
- Folder Monitors
- Inbound and Outbound
- Ad Hoc and Batch
- File Sync and Sharing
- Custom Secure Forms
- Secure Email
- Partner Management



GO ANYWHERE®
Managed File Transfer

Alerts



Audit Logs & Reports



Platforms



Windows, Linux,
IBM i, AIX, Solaris,
UNIX, Mac

File Services



SFTP, SCP, FTPS, FTP,
AS2, HTTP/S, SMB,
Email, WebDAV

Cloud



Amazon, Azure,
Web Services

Databases



SQL Server, MySQL,
DB2, Oracle, PostgreSQL,
Sybase, Informix...

Applications



Scripts, Programs,
Commands, MQ,
SNMP, ICAP

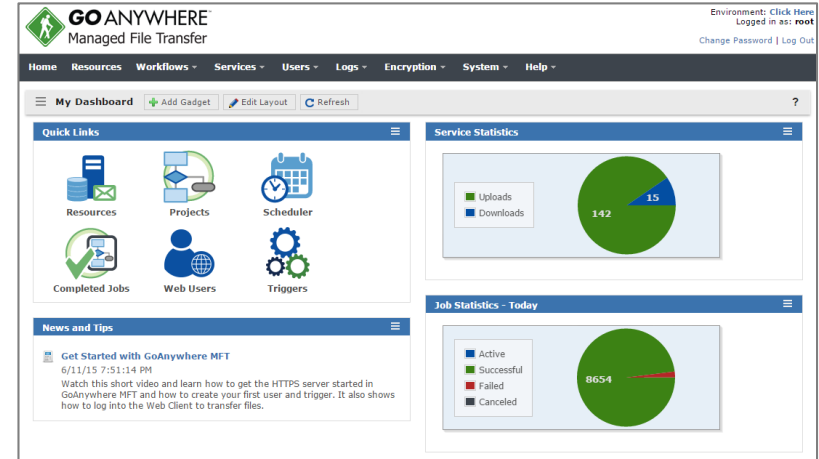
MFT Agents



Remote Workflows
and File Transfers

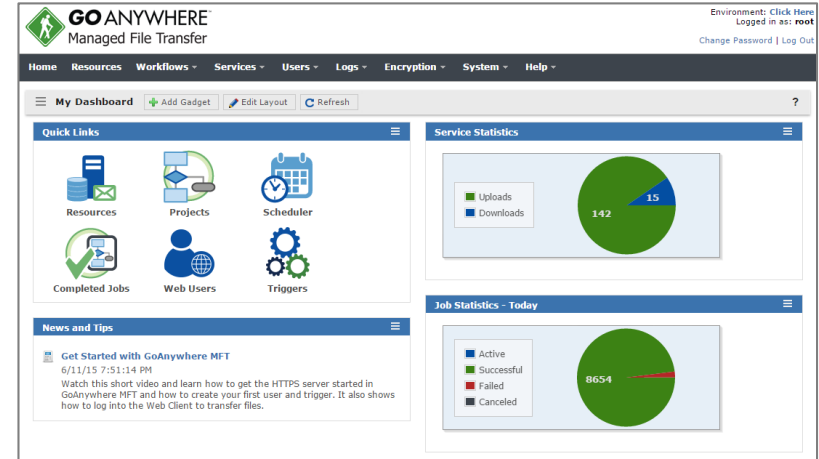
GoAnywhere MFT: Enterprise Features

- ▶ **Multiplatform** - Installs to most operating systems including IBM i, Windows, Linux, AIX, UNIX, Amazon and Azure.
- ▶ **Batch and Ad Hoc** - Allows organizations to perform both scheduled batch transfers and user-to-user file sharing.
- ▶ **Auditing** - Generates detailed audit logs of all file activity including batch, ad hoc, inbound and outbound transfers.
- ▶ **Interface** - Provides a browser-based interface for all administration and monitoring. No desktop client is needed.



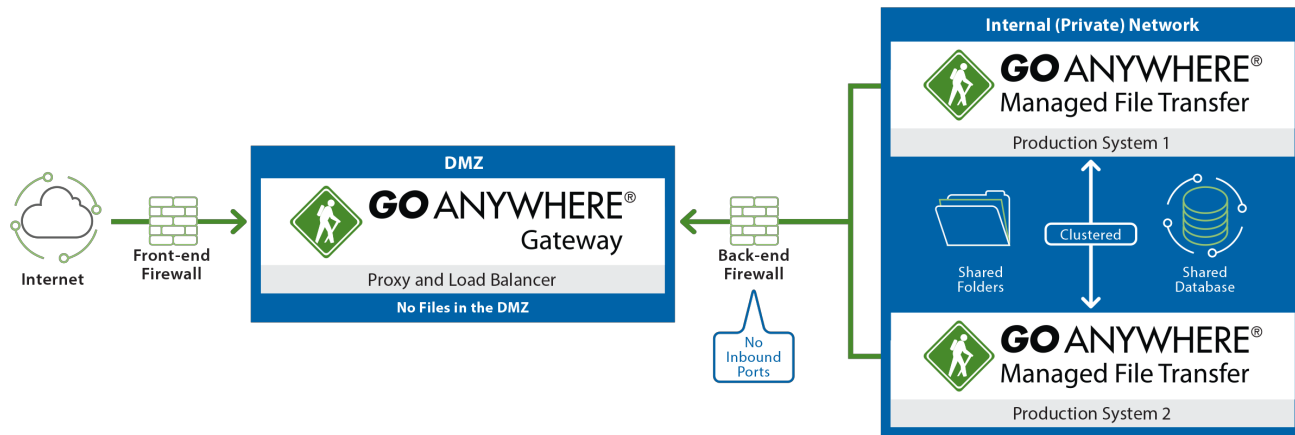
GoAnywhere MFT: Enterprise Features

- ▶ **Inbound Services** - Allows inbound connections from trading partners over SFTP, FTP/S, HTTPS and AS2 (Drummond Certified).
- ▶ **Encryption** - Protects files at-rest and in-motion with FIPS 140-2 validated AES-256 encryption.
- ▶ **Key Management** - Provides integrated tools for creating and managing Open PGP keys, SSH keys and SSL certificates.
- ▶ **Admin Controls** – Implements role-based administration, security domains and granular permission controls.



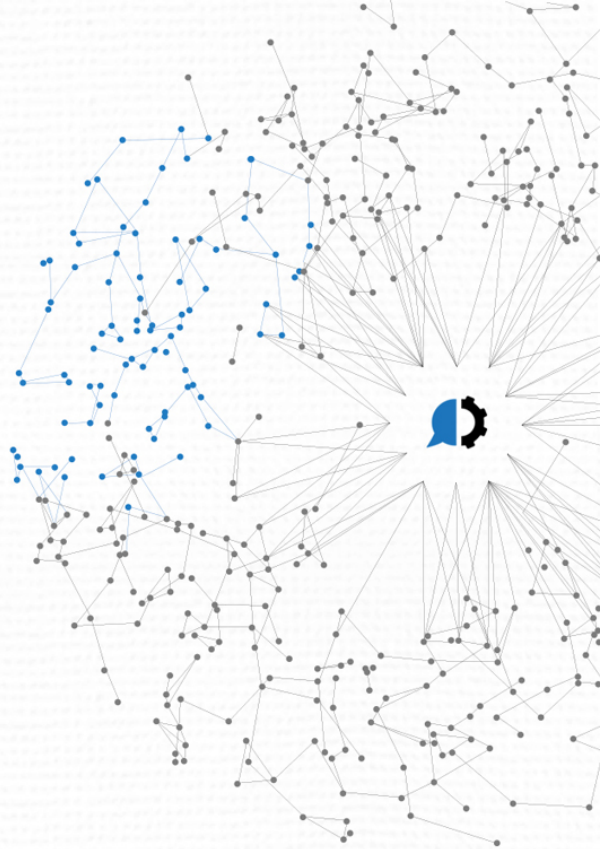
GoAnywhere MFT: DMZ Gateway

- ▶ No incoming ports are opened into the private (internal) network.
- ▶ No sensitive files are stored in the DMZ.
- ▶ User credentials are maintained/stored in the private network.
- ▶ Gateway supports FTPS, SFTP, SCP, and HTTPS file transfer protocols.
- ▶ No special hardware components. This is a software-only solution.





Live Demo

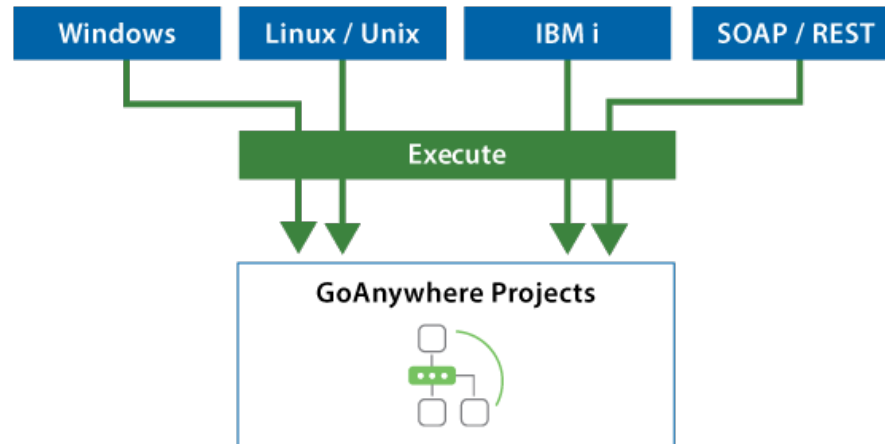


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Demo: Commands and APIs



- ▶ Run workflows in GoAnywhere MFT using the provided commands and APIs.
- ▶ Available for Windows, Linux, IBM i (iSeries), and UNIX.
- ▶ SOAP and REST are enabled.
- ▶ Requests are sent over HTTPS.
- ▶ You can override variables.
- ▶ File transfers can be run interactively or in batch.
- ▶ You can trap for errors.
- ▶ Commands and APIs are provided at no additional charge.



Demo: Running a Project from the CL

- ▶ Monitor for message IDs.
- ▶ Any errors are placed in the Job Log.
- ▶ Retrieve any errors with RCVMSG command.

```
0001.00 PGM
0002.00 DCL &MESSAGE *CHAR 80
0003.00
0004.00 /* Run the Transfer */
0005.00 RUNPROJECT PROJECT('/Payroll/SendDirectDeposit') +
0006.00         USER(SFIELD) PASSWORD(******) +
0007.00         VARIABLE((StateCode NE)) PRIORITY(5)
0008.00
0009.00 /* Project failed or could not connect */
0010.00 MONMSG MSGID(GAE1002 GAE1003) EXEC(DO)
0011.00
0012.00 /* Get the error message from the program
0013.00     message queue */
0014.00 RCVMSG RMV(*NO) MSG(&MESSAGE)
0015.00
0016.00 /* Send the error to QSYSOPR */
0017.00 SNDMSG MSG(&MESSAGE) TOMSGQ(QSYSOPR)
0018.00 ENDDO
```

RPG procedures are also available to run a project.

Demo: Running a Project from Windows/Linux



Windows Example:

```
gacmd.exe -server https://192.168.1.20:8000/goanywhere/  
-user projectManager -password *****  
-command runProject  
-Project /Payroll/SendDirectDeposit  
-variables fileName "deposit.csv" folderPath "/inbound/deposit"
```

Linux Example:

```
sh gacmd -server https://192.168.1.20:8000/goanywhere/  
-user projectManager -password *****  
-command runProject  
-Project /Orders/SendPurchaseOrders  
-variables VendorNumber "423231" Status "Open"
```

APIs are also provided for Java and .NET.

IBM i (iSeries)

- | | |
|---------------------------|--|
| - Operating System | V7R1 or higher |
| - Disk space requirements | 275 MB per product (not including user data) |
| - Memory requirements | 512 MB minimum per product |
| - JRE (Java Runtime Env.) | Java SE 8 32 bit or Java SE 8 64 bit |

UNIX / AIX / Solaris / HP-UX:

- | | |
|---------------------------|---|
| - Disk space requirements | 250 MB per product (not including user data) |
| - Memory requirements | 512 MB minimum per product |
| - JRE (Java Runtime Env.) | JRE's that can be used <ul style="list-style-type: none">• Oracle Java SE 8• Azul Zulu Java SE 8• IBM Java SE 8 |

Installation Requirements



Linux (32-bit and 64-bit):

- Distributions Red Hat, SUSE, Ubuntu, CentOS (not inclusive)
- Disk space 375 MB per product (not including user data)
- Memory 512 MB minimum per product

Windows (32-bit and 64-bit):

- Operating System Windows 2016, 2012, 2012 R2, 2008 R2, XP, Vista, 7, 8, 10
- Disk space 375 MB per product (not including user data)
- Memory 512 MB minimum per product

Virtualized Environments:

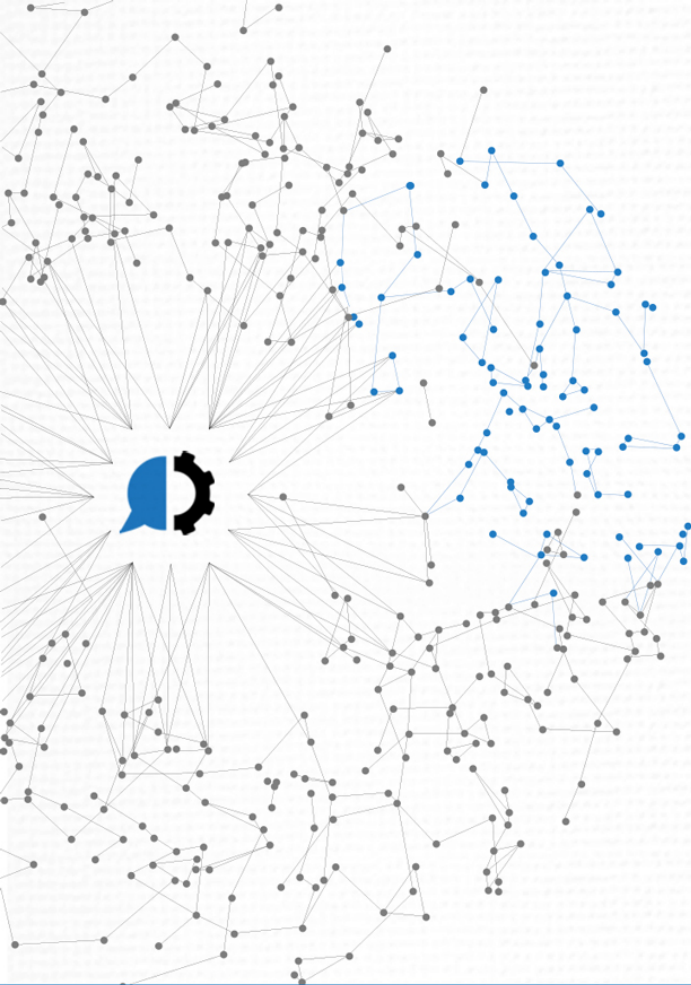


Thank You for Joining Us!

What next?



- ▶ Get started with a free 30-day trial at www.goanywhere.com/trial
- ▶ Contact us with questions:
 - ▶ heath.kath@helpsystems.com
 - ▶ goanywhere.sales@helpsystems.com
 - ▶ Toll -free: 1-800-949-4696
 - ▶ Direct: 402-944-4242



Any
Questions

