Secure and Automate Your File Transfers for IBM i and AIX
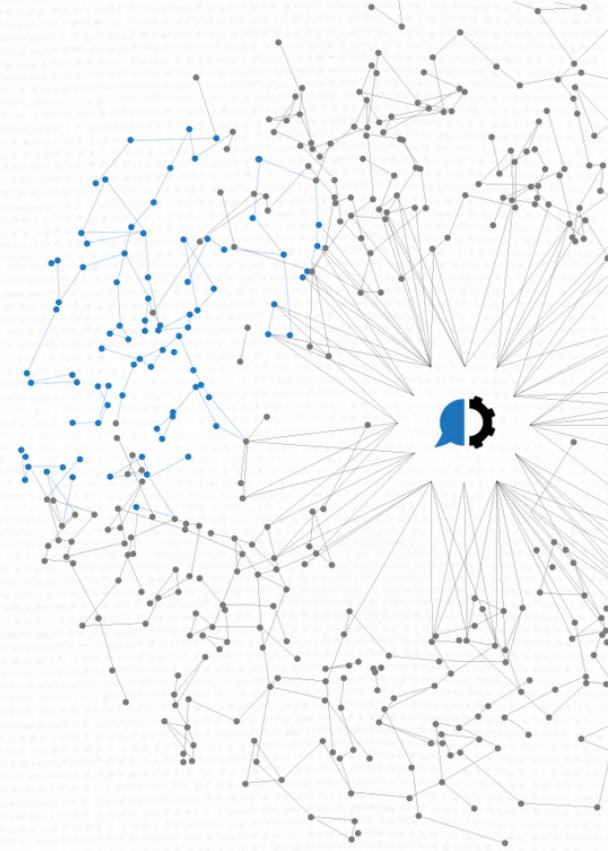
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Introductions

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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
- 600 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

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Tech solutions. Human support.

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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

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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.

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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.

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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	File Services	Cloud	Databases	Applications	MFT Agents
Windows, Linux, IBM i, AIX, Solaris, UNIX, Mac	SFTP, SCP, FTPS, FTP, AS2, HTTP/S, SMB, Email, WebDAV	Amazon, Azure, Web Services	SQL Server, MySQL, DB2, Oracle, PostgreSQL, Sybase, Informix...	Scripts, Programs, Commands, MQ, SNMP, ICAP	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.
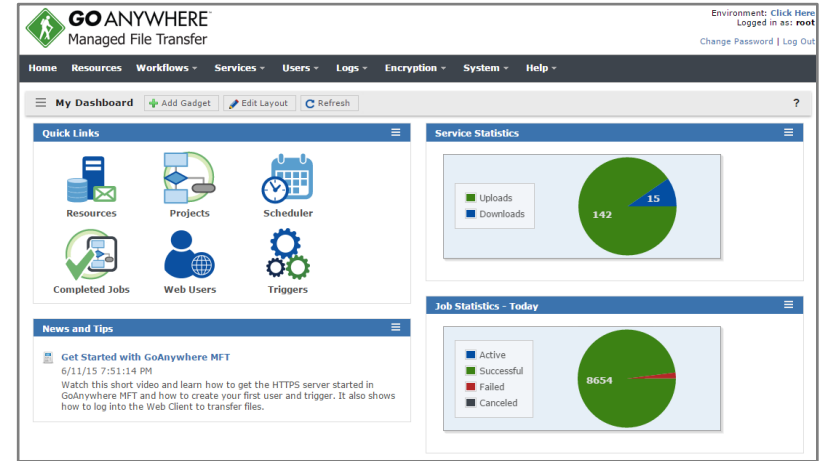
GoAnywhere MFT: Enterprise Features

▶ **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.
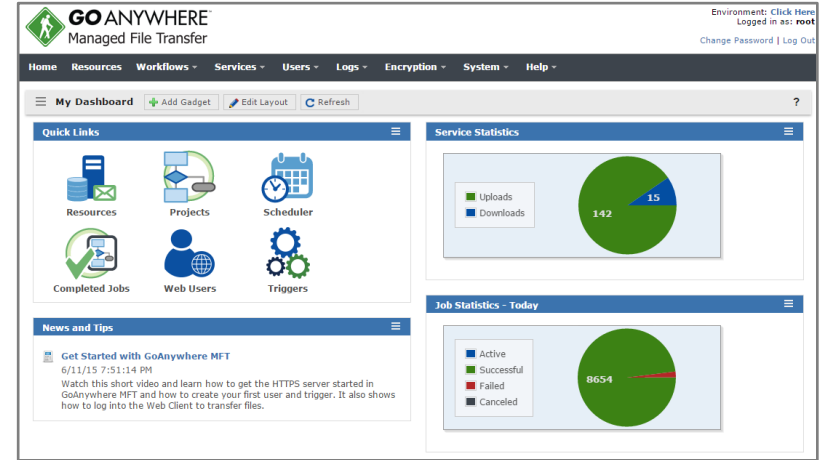
GoAnywhere MFT: DMZ Gateway

▶ 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.

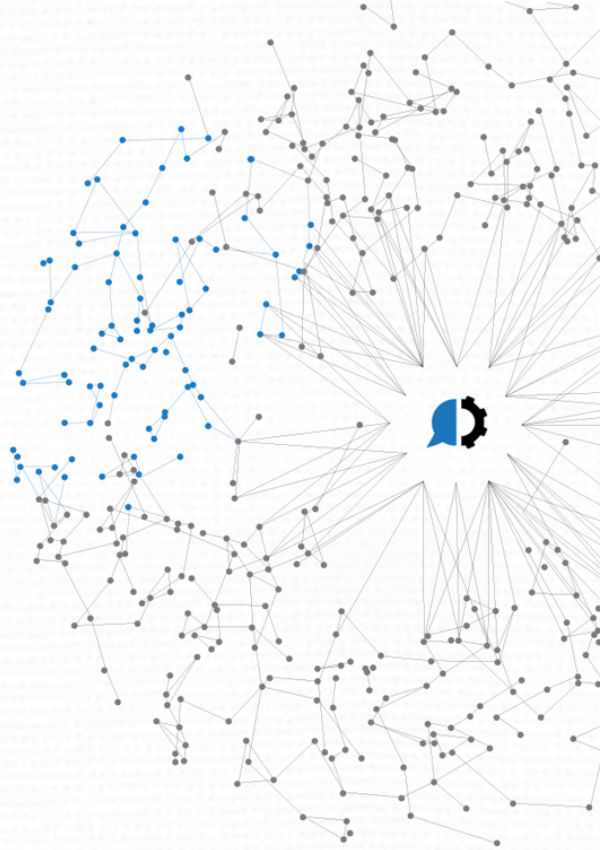▶ No special hardware components. This is a software-only solution.

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Live Demo

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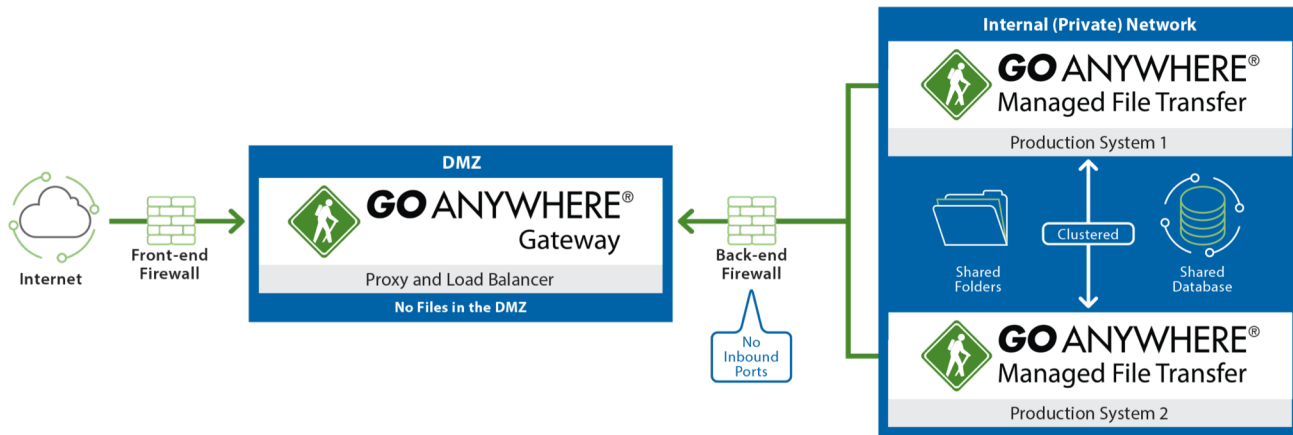
Demo: Commands and APIs

GO ANYWHERE®
Managed File Transfer

- ▶ 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.

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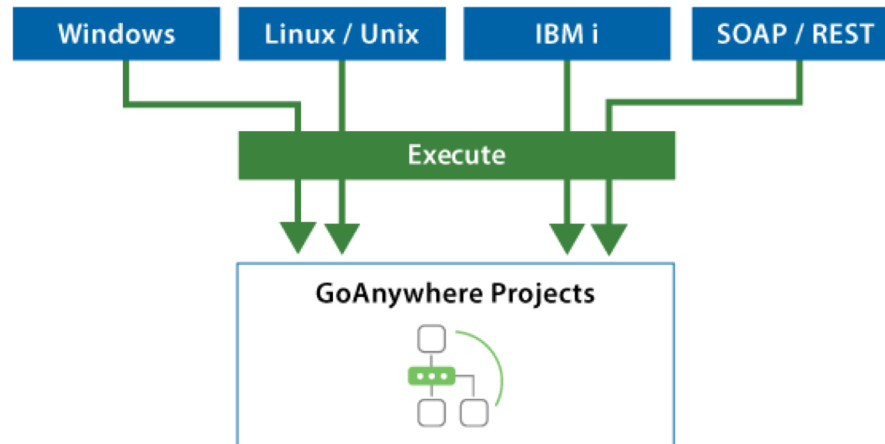
Demo: Running a Project from the CL

▶ Monitor for message IDs.

▶ Any errors are placed in theJob 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

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Managed File Transfer

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.

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Installation Requirements

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   1.7 or later

UNIX / AIX / Solaris / HP-UX:
- Disk space requirements   250 MB per product (not including user data)
- Memory requirements   512 MB minimum per product
- JRE   1.7 or later

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 R2, 2008 R2, 2003, 2000, XP, Vista, 7, 10
- Disk space   375 MB per product (not including user data)
- Memory   512 MB minimum per product

Virtualized Environments:

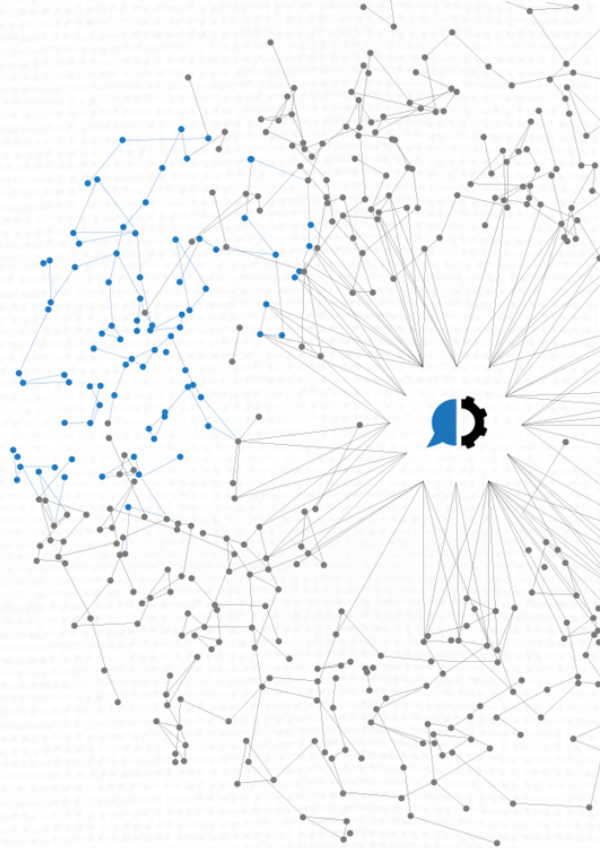vmware READY   Microsoft Hyper-V   amazon web services™ | EC2   IBM®   Microsoft Azure

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Thank You for Joining Us!

What next?

▶ Get started with a free 30-day trial at www.goanywhere.com/trial

▶ Contact us with questions:
   ▶ bob.luebbe@helpsystems.com
   ▶ goanywhere.sales@helpsystems.com
   ▶ Toll-free: 1-800-949-4696
   ▶ Direct: 402-944-4242

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Q&A

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