SFTP Bulk Upload Guide

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Indiana Department of Revenue

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Important Information: Read before proceeding

The Indiana Department of Revenue (DOR) has created this SFTP Bulk Upload guide for business customers that need to submit a file size that exceeds 10 MB. Registering for SFTP can only take place if a file has been rejected by INTIME for exceeding the 10 MB size restriction.

If a file size is under 10 MB, manually enter or upload via INTIME.
When filing securely via INTIME, bulk files do **not require** a file naming convention **or** encryption.

If a file size exceeds 10 MB, continue to use this guide to register for SFTP.
When bulk filing via SFTP, it is **required** to follow the file naming convention and file(s) **must be encrypted**.

Overview of Bulk Upload

Taxpayers who need to submit files that exceed 10 MB can electronically bulk upload these records to the Indiana Department of Revenue (DOR) via Secure File Transfer Protocol (SFTP) for all file types. Bulk upload files are created by the customer and then submitted to DOR for processing. The files are processed sequentially within a couple of hours. During high-volume processing, there can be an increased turnaround time for acknowledgements. When the process is complete an acknowledgment email is sent to the authorized representative with the results of the submission.

INTIME (Indiana Tax Information Management Engine), DOR's e-services portal, provides an expanded file size limit of 10 MB for many of the files submitted. DOR recommends INTIME as the preferred method for file submission. Accepted files will not be viewable on INTIME for at least one full business day.

Additional information and resources for bulk filing Indiana taxes are available.

See Appendix F for more information on tax type and bulk filing methods and options.

Important

There is no requirement to sign up for SFTP.

If you do not have an SFTP account, disregard the SFTP annual renewal process request and follow the INTIME renewal process found in the INTIME Guide to Filing Withholding Taxes.

SFTP is only used for file sizes that exceed 10 MB.

INTIME accepts files up to 10 MB, but if a file exceeds that limit, then SFTP must be used.

SFTP Bulk Filing Annual Renewal

With the passing of Bill 234 (effective January 2022), there is a new SFTP bulk filing annual renewal process for payroll service providers who file Withholding, **including Professional Employer Organizations (PEO),** and **Certified Professional Employer Organizations (CPEO)**. All active SFTP accounts must renew their accounts annually prior to December 31.

Indiana Code 6-8.1-18-1

"A payroll service provider must certify and acknowledge that the bank account that is used by the payroll service provider for employer withholding tax deposits shall only be used for employer withholding tax liabilities and other payroll obligations of client employers that the payroll service provider is holding and is required to remit to the appropriate agency, employee of the employer, or other payee as authorized by the employer, and may not be used for any other purpose (other than using the account as a sweep account), including for the payment of operating expenses or personal use, and that a payroll service provider's withdrawal or use of funds in the account for any unauthorized purpose constitutes fraud."

Step 1.   Go to INTIME (non-logged in screen)
Step 2.   Locate "Renew SFTP Registration" panel and click on, "Annual renewal for SFTP registration"
Step 3.   Enter vendor code and name of previously submitted Withholding filename.
Step 4.   Read and agree to "Notice to service providers"

Tip: Be sure to check the box agreeing to the notice or you will receive an error message before you can move on to the next screen.

Taxpayer Registration

Before filing bulk returns all submitters, or customers with files being submitted on their behalf, must be registered with the State of Indiana, and have a valid 10-digit TID number with a three-digit location. If you need to obtain your Indiana State ID (TID), you can register at inbiz.in.gov/taxes-fees/tax-registration.

SFTP Password Information

For an existing SFTP account: If you have an existing SFTP account and need to reset your password, a request must be sent via email to bulkfiler@dor.in.gov along with your vendor code and username for the account.

For a new SFTP registration: Following the approval of a new SFTP registration, an INTIME message will be sent containing with your vendor code. You will receive a secure email from DOR containing your SFTP password, to the email address you registered with. It may take up to two full business days before receiving a secure email containing your SFTP password.

New SFTP Registration Steps

Only customers with files that exceed 10MB in size can register to use SFTP with the following steps:

Step 1: All customers must be registered on INBIZ to receive their 10-digit Indiana Taxpayer Identification Number (TID).

Note: A three-digit location number will be provided in a letter from DOR, and then viewable as part of the TID once a customer is logged in to INTIME.

Step 2: All submitters must register or already have an INTIME logon to access SFTP registration.

Note: A vendor code is not required when uploading XML files via INTIME; Leave "Vendor Code" field blank (example: <VendorCode></VendorCode>) or enter all ones (example: <VendorCode>11111</VendorCode>.

Step 3: Before a customer can register for SFTP, a file must be submitted via INTIME direct upload and be rejected for exceeding the 10 MB size limit. Files must be 10MB or higher to utilize SFTP.

Step 4: To begin SFTP registration process, log in to INTIME, go to "All Actions" tab, then the "SFTP Filer registration" panel to select "New SFTP registration" link.

Step 5: Enter 10-digit TID and click "Next." Using anything other than your TID will result in the registration being rejected during processing.

> **Tip**: TID is displayed in the top-left corner of the screen under the business name when logged in to INTIME.

Step 6: Enter all required SFTP filer information then click "Next."

Step 7: You must check the box to confirm that the information provided is accurate. If the box is not checked, the SFTP Registration request cannot be submitted.

Step 8: A confirmation will be provided on screen. Save this confirmation for your records. A printable view option is available and allows the customer to print or save a copy.

Step 9: Once registration has been completed, an email will be sent from Do_Not_Reply@dor.in.gov with a unique case-sensitive SFTP username, vendor code, tax codes, and FTP site name.

Step 10: A secure email will be sent separately to your email address on file containing a unique case-sensitive SFTP password. It may take up to one full business day before receiving the secure email containing your SFTP password.

Step 11: Files must follow the naming convention before submission to the SFTP site. The file naming convention is available in this guide. Not following the file naming convention will result in your file being rejected.

Step 12: Files must be properly encrypted for SFTP submission. Encryption process information is available in this guide. Instructions on how to download and install PGP or GPG software is available in Appendix A for PGP or Appendix B for GPG.

Step 13: Download and install DOR's public key for file encryption. If your file is not encrypted properly, it be rejected.

Step 14:   [Download and install the client SFTP software](#) (GUI (WinSCP Install). See instructions in [Appendix C](#).

Step 15:   File specifications and schemas are available on [DOR's Resources for Bulk Filing your Indiana Taxes](#) page.

Existing SFTP Registration Steps

A customer will need to follow existing SFTP registration steps if they need to update or add additional contacts, email, phone number(s), and/or additional tax type(s) if appropriate.
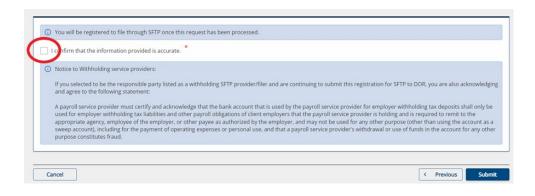
Step 1:   To begin existing SFTP registration process, log in to INTIME, go to "All Actions" tab, then the "SFTP Filer registration" panel to select "Existing SFTP registration" link.

Step 2:   Enter your valid SFTP vendor code

Step 3:   Enter new information in the fields under the "New vendor contact information (enter only if different from existing)" section. This is where contacts, email address(es), phone number(s) can be updated or added. Additional tax type(s) can be added in the bottom section if needed

Step 4:   You must check the box to confirm that the information provided is accurate before hitting submit. If the box is not checked, the SFTP Registration request cannot be submitted. A confirmation number will be displayed once submitted.

ACH Debit Payments: Debit Block Option

Customers who use an Automated Clearing House (ACH) debit to make tax payments to DOR will be required to provide their business' bank with the following **Debit Block: 9207000TAX**.

A Debit Block protects your business's bank account from unauthorized electronic charges. This additional safeguard is completely optional and is used by some customers that elect to allow only ACH debits with a matching Debit Block number to draft payments from their bank account. See more information.

If a payroll service provider submits an ACH payment with your business' bank account number and you have an existing debit block on the account, then you DO need to ADD the debit block number with your bank. If the payroll service provider is submitting a payment with their bank account number, then you do NOT need to update the debit block. In this scenario, the service provider will need to update their own debit block number.

Testing your File for Submission

Test files will only be accepted in special circumstances as deemed necessary. Testing is a manual process, and you must contact us via Bulkfiler@dor.in.gov in the event you are required to submit a test file for the file to be processed and feedback to be provided. SFTP supported tax types will be processed as a production file **unless** you change the file type to a "T" instead of a "P" and notify the Bulk Filer mailbox to which you wish to submit a test file.

File Validation

XML files have two levels of validation:

1. Schema validations
2. Business rule validations.

Flat files have field value validations (e.g., line lengths, required records.).

If either file type fails format validations, no business rule validation will occur because DOR will be unable to read the file.

Acknowledgements

When uploading an encrypted file to the SFTP site, you will receive an acknowledgment email to notify you that your file has been processed. You can also elect to have detailed XML sent to your SFTP out folder.

The email will indicate the status of the file with one of the following messages:

Accepted: The absence of any error messages or codes indicates that the return processed successfully. The base filename will be the same as that of the file submitted.

Partially Accepted: DOR's system processes accepted returns within the file and rejects the incorrect returns. The XML attachment will provide details of which returns have been accepted, and which have been rejected along with the reason for the rejection. This allows you to correct the rejected returns within that file and resubmit only the ones that had been rejected.

Rejected: If any of the records submitted in flat file format have invalid or incorrectly formatted data, the entire file is rejected. The error message lists the returns that require correction.

Example of a successfully processed file email message

The Indiana Department of Revenue (DOR) received a bulk file named [*FileName*] from you or on your behalf. The file was fully processed without errors. An XML formatted file detailing the processing results is attached to this email for your records.
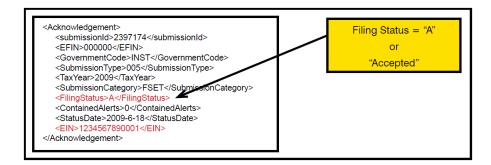
Note: If you do not receive an acknowledgment file you should **not** assume your file has been received and or accepted. Do not resubmit a file until you receive a message indicating that it has not been received.

If you do not receive an acknowledgement within two hours:

- Verify that the file was named correctly, which includes your accurate Vendor Code as shown in your Certificate of Registration along with the other name parts.
- Verify that file was encrypted using only DOR's public key.
- Reach out to the bulk file email box Bulkfiler@dor.in.gov

If these are correct, email DOR at BulkFiler@dor.IN.gov to verify reception.
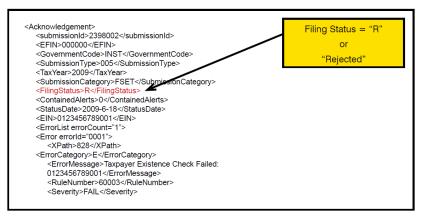
This is an example of a return with no errors and indicates the return processed.

Example of rejected file email message

The Indiana Department of Revenue (DOR) received a bulk file named *[FileName]* from you or on your behalf. The file has been rejected for validation errors. An XML formatted file detailing the errors is attached to this email. Please resubmit a corrected file.

The following example shows a return that was rejected due to an invalid TID and location in the EIN element. When a return is submitted through the bulk upload process, the Indiana ID and location are verified against our main database. If this TID and location do not match any active accounts in our database, the return is rejected. This return should be corrected and resubmitted.

```
<Acknowledgement>
    <submissionId>2398002</submissionId>
    <EFIN>000000</EFIN>
    <GovernmentCode>INST</GovernmentCode>
    <SubmissionType>005</SubmissionType>
    <TaxYear>2009</TaxYear>
    <SubmissionCategory>FSET</SubmissionCategory>
    <FilingStatus>R</FilingStatus>
    <ContainedAlerts>0</ContainedAlerts>
    <StatusDate>2009-6-18</StatusDate>
    <EIN>0123456789001</EIN>
    <ErrorList errorCount="1">
    <Error errorId="0001">
        <XPath>828</XPath>
    <ErrorCategory>E</ErrorCategory>
        <ErrorMessage>Taxpayer Existence Check Failed:
        0123456789001</ErrorMessage>
        <RuleNumber>60003</RuleNumber>
        <Severity>FAIL</Severity>
```

Filing Status = "R"
or
"Rejected"

Example of partially accepted file email message

If there are multiple returns in an XML format file, each return can be accepted or rejected independently of each other. The partially accepted file email message will include an XML attachment that will provide details of which returns have been accepted and which have been rejected along with the reason for the rejection. Once the returns have been corrected, do not resubmit the returns that were originally submitted successfully, only those that were rejected.

Recap of Steps to File

Step 1.   Create a file containing the returns to be submitted. The file must be in accordance with the specifications. The filename must be in accordance with the certificate of registration.

Step 2.   Encrypt the file using our public key.

Step 3.   The filename should be the same as the original except with the additional suffix of .pgp or .gpg. Do not encrypt using both .pgp and gpg, only choose one or the file will fail for double encryption error.

Step 4.   Connect to our secure SFTP site using your software or the software downloaded. Follow the instructions in Appendix C.

Step 5.   Upload the file to the DOR's secure SFTP site.

Step 6.   You should receive an email with the acknowledgement XML attached.

Step 7.   Fix and resubmit any returns that did not process because of errors.

Note: Resubmit only the returns that failed. Do not resubmit the entire file.

SFTP Bulk Filing

Files transmitted via the bulk upload process **must** be named using the convention. The file should be encrypted using PGP or GPG encryption. Please follow the guidelines in Appendix A, or, for encrypting a file, use Appendix B.

With the file named according to specifications provided in your certificate of registration and encrypted using PGP or GPG, it can be uploaded to the SFTP site designated by DOR. You can accomplish this programmatically or use SFTP software to connect to the site. Download software to connect to the SFTP site, and then select the GUI (WinSCP Install) option.

File Naming Conventions

Note: File names must be 21 characters in length, not including the file extensions. Incorrectly named files will not be processed or acknowledged.

Position	Numbers of Characters	Values
1	1	File Type Indicator Valid Indicators: P = Production T = Test
2-11	10	Submitter Identifier as assigned through DOR's registration process. Left Zero padding is required.
12-14	3	Tax Form Code 005 = Form WH-1 201 = WH-3 (XML files) and EFW2 Specification (flat files) 202 = 1220 format (include W2Gs and 1099Rs) 027 = MVR-103 See Appendix F for more options.
15	1	File format code that is used to represent the data in the file. This is the file format that was certified. 1 = XML 2 = ASCII or .txt
16-21	6	Sequence Number incremented from 000001 for each transmission of the specified Tax Form Code made by the Submitter in a given tax year.
22-25	4	Extension depending on the file format. File format Extensions: .xml .txt
26-29	4	File Extension after encryption: .pgp .gpg

Note: Duplicate file names in a calendar year will be rejected.

Examples: File name of production file (P), submitter identifier 12345678, tax type WH-1 (005), file type - xml (1), sequence 7,
- **Before Encryption**:
  P00123456780051000007.xml

- **After Encryption**:
  P00123456780051000007.xml.gpg

Encryption for SFTP Submission

All files **must** be encrypted using PGP **or** GPG (kleopatra) when sent to our secure SFTP site.

Tip: This type of activity might be the responsibility of your IT department.

To encrypt your file :

Step 1.   Create your own public/private key pair using PGP/GPG.
Step 2.   Download and install DOR's public key for file encryption. If your file is not encrypted properly it be rejected.
Step 3.   Import the DOR's public key into your encryption software for your use.
Step 4.   Encrypt the data using only DOR's public key.
Step 5.   Upload the data to the secure SFTP site.

PGP/GPG encryption works between two parties, each of which has a pair of encryption keys: one of which is public, the other private. The data to be encrypted is encoded using the recipient's public key. The recipient checks the validity of the sender data by checking the encryption against the recipient's private key. If that step passes, the data can be decrypted using the recipient's private key. In this way, the public key can be made public and there is no need for the private key to be sent to the submitter, thus improving security.

PGP or GPG Software

Note: Use either PGP **or** GPG, but not both. Using both will encrypt a file twice and cause it to be rejected.

GPG Kleopatra Install and Key Generation

Step 1:   Download GPG / Kleopatra. Install the downloaded gpg4win.exe to install GPG / Kleopatra.

Note: Select the option "Kleopatra" when installing Gpg4win.
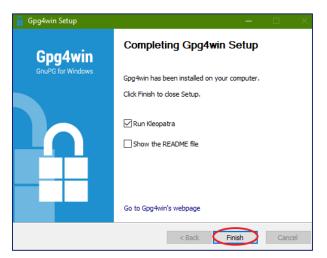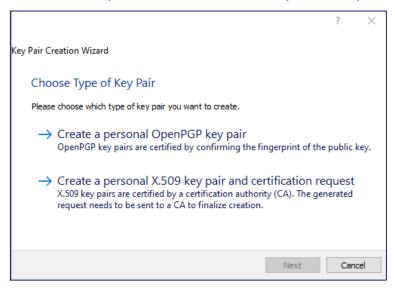
Step 2:

Step 3:

Step 4:

Step 5:

Step 6:

Step 7:   Once installed, run Kleopatra then select "Create a personal OpenPGP key pair."

Step 8:   Verify your name and email address, then click on "Advance Settings."

Step 9:   Make your screen match the following settings. Click "ok" to return to the previous screen, and then click "Create."

Note: RSA bit size is the minimum that should be used.

Step 10:   When prompted for a passphrase for your keys, provide something that you will remember. You will need this passphrase when adding other keys to your key ring.

Note: Create a passphrase that is at least 14 characters, and uses at least one upper case, one lower case, and one number.

Step 11:   Your new key pair has been created. It is very important to make a backup of your key pair and keep it somewhere safe in the event you lose access to your computer, you can reimport your key pair.

Step 12:   Once the key pair has been created, select "Export'" and then "Upload Public Key to Directory Service."

Step 13:   Once you have created your key pair, Kleopatra shows the contents of your key ring as below: Select the "Import" button and select the Indiana State public key (Indiana Department of Revenue ERF.asc).

Step 14: After importing the State public key, you will be prompted to verify its validity, select "Yes."
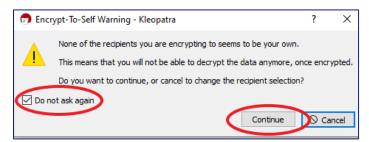
Step 15: When prompted to certify this new key, select "Certify."

Step 16: You will be prompted for the passphrase of your key pair.

Step 17: When importing the State key, you will be prompted to verify. Select "Continue."

Kleopatra Usage

Step 1:   To encrypt a file using GPG and Kleopatra for submission to Indiana via SFTP Bulk File, launch Kleopatra. The Kleopatra startup screen should display your key and our public key (Indiana Department of Revenue ERF) that has been imported. Select "Sign/Encrypt" in the upper-left menu.

Step 2:   Navigate to your file and select the file to be encrypted. Then select "Open."

Step 3:   When first opened, the "Sign/Encrypt" screen will have all the boxes checked as a default. Deselect "Sign as:" and "Encrypt for me:" so that only "Encrypt for others" is left checked, then click in the "Encrypt for others" field where it says, "Please enter a name or email address...", select the "Indiana Department of Revenue ERF" (associated with RAtkinson email), and then select that key.

Step 4:   Note the filename and extension in the bottom text box that is showing the encrypted file that will be produced. Select the "Encrypt" button.

Step 5:   Once the "Results"/"Encryption succeeded" screen is displayed, click on "Finish".

Contact Us

Electronic Services Team
Indiana Department of Revenue
100 North Senate Avenue, IGC N286
Indianapolis, IN 46204-2253
Bulkfiler@dor.IN.gov

APPENDIX A: PGP Setup and Use

PGP (pretty good privacy) is a software package used for encryption of files and emails. PGP is now owned by Symantec and is available for a license fee. PGP is downloadable and available for purchase at https://www.symantec.com/products/information-protection/encryption/command-line.

All of the commands in this document were executed in a Command (DOS) window. These commands can also be executed in a Powershell Window. All commands are shown in Courier New font. Answers to prompts are highlighted in bold red as in the example below:

```
C:\>pgp --gen-key "Your key Name" --key-type "RSA" --encryption-bits 2048
--passphrase "Your passphrase" --signing-bits 2048
Your key Name:generate key (2078:non-standard user ID)
Acquiring entropy from system state....done Generating key Your key
Name progress.....******* ...........................******* done
0x7CC44594:generate key (0:key successfully generated)
Acquiring entropy from system state....done Generating subkey
progress.........................................****** **
...........................
..............................
.......******* done
0xEF5C71EE:generate key (0:subkey successfully generated)
```

In order to use encryption, a key is required. Keys are composed of a private and a public part. When you encrypt a file for submission to DOR, you use the public part of our key; when decrypting, you use the private part of your key. Below is the command to generate a key.

Conventions used in this tutorial:

- Commands are shown in Courier New type in black.
- Answers to prompts are shown in bold red type.
- Substitutions are shown in bold blue type

Install PGP

Purchase, download, and follow the installation instructions from Broadcom.

Note: Use either PGP or GPG, but not both. Using both will encrypt a file twice and cause it to be rejected.

Generate a key

Generating keys is an interactive process.
Note: You need to remember the passphrase for your key!
Execute the following command:

```
C:\> pgp --gen-key "your key name" --key-type "RSA" --encryption-bits 2048
--passphrase "your passphrase for this key" --signing-bits 2048
```

APPENDIX B: SFTP Client Installation and Setup Instructions (WinSCP)

Installation and Setup

The following instructions will guide you through the process on how to install and set up the software to send DOR your files.

Step 1.   Go to the SFTP website
Step 2.   Click GUI (WinSCP Install)
Step 3.   After installing, run WinSCP by double-clicking the desktop icon

Setting Up and Saving a SFTP Session (optional)

Step 1.   Select SFTP for the File Protocol
Step 2.   Populate Host Name with: SFTP.DOR.IN.GOV
Step 3.   Populate Port number with 22
Step 4.   Populate Username with username supplied by DOR. Note this field is case sensitive, so copy paste from supplied email is preferred.
Step 5.   Populate Password with password supplied by DOR.

Note: Due to the complexity of the password and case sensitivity, it is easier to cut and paste the password into the password field.

Click the Save button, supply a site name and folder location (you may wish to save the password).

APPENDIX C: Using WinSCP to Send a File

Double-click the WinSCP icon on your desktop. If you previously saved a stored session, click on the name you saved (Example: Your_user_name@SFTP.DOR.IN.GOV) and click Login.

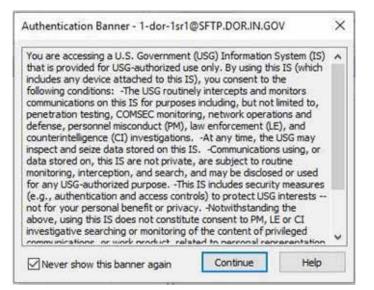Enter your password (if not saved) and click OK. This window will open, if you do not want to see this screen each time you log in click the Never show this banner again check box.

If you did not provide a password on the logon screen you will get a window where you will be prompted to enter your password.

Note: Due to the complexity of the password, it is easier to cut and paste the password into the password field.

Accept the host keys and Authorized User Policy. Click Continue.

The program window will display and split the local directory and the remote directory as two side-by-side panes.

Using the left pane, go to the location where you created your secure PGP/GPG file. Click and drag that file from the left pane and drop it into the IN folder in the right pane. Repeat as desired. When you are done, click the "X" in the upper-right corner to close this screen.

APPENDIX D: Common Errors

Error	Description
I did not receive an acknowledgement email.	File was not named correctly. Files not adhering to the naming convention will NOT be acknowledged or processed. If you do NOT receive an acknowledgement email, contact DOR at bulkfiler@dor.in.gov before resending any files.
"File not Found"	File was not encrypted using the department key. See Appendix A for instructions.
"Duplication filename this calendar year"	Each file submission must have a unique filename within a calendar year. If your file is rejected for "Bad Filename" error, resubmit your file using a new file name and an alteration inside the file such as the "transmissionid" node or "timestamp" node. This will avoid a duplicate file being submitted.
I do not know the passphrase for PGP.	The passphrase is the phrase you entered when creating your private key. DOR does not retain this information for your security. If you do not remember your passphrase, you can delete your private key and create a new one.
I cannot log in to the SFTP server.	If you unsuccessfully attempt to log in to sftp.dor.in.gov, check that your firewall allows outbound traffic to host address "SFTP.DOR.IN.GOV".
Indiana Department of Revenue key is disabled.	Bring up Symantec Encryption Desktop by clicking your start icon in Windows and clicking All Programs>Symantec Encryption>Symantec Encryption Desktop. Then click the view tab at the top. Then click PGP Keys. Find Indiana Department of Revenue ERF and right click it. Then select Enable. This should enable you to use the key.
Errors in acknowledgements	The three most common file errors are: • Special characters in text fields (e.g., comma (,), period (.), semicolon (;), colon (:), ampersand (&), apostrophe ('), number (#)) • Putting decimals into fields that require whole numbers • Space at end of text field

APPENDIX E: Common Acronyms

Acronym	Description
ACH	Automated Clearing House
DOR	Indiana Department of Revenue
EIN	Employee Identification Number
ERF	Electronic Return Filing
GPG	GNU Privacy Guard (encryption technology)
INTIME	Indiana Taxpayer Information Management Engine (DOR's e-services portal)
ITS	Indiana Tax System (DOR's Tax Processing System)
MEF	Modernized E-File
MVR	Motor Vehicle Rental
PGP	Pretty Good Privacy (encryption technology)
SFTP	Secure File Transfer Portal
TID	Taxpayer State Identifier
WTH	Withholding

APPENDIX F: Form Types, Bulk Filing Methods, and Options

A chart of all the tax form types and the various bulk filing methods and options available for each is available at dor.in.gov/files/dor-efile-methods-bulk.pdf