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| |  | | --- | | **Tungsten Network Basics: Invoice File Submission Methods** |   Version 2.0 |

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# Purpose

To process invoices, clients must submit files into the Tungsten Network system. This document gives an overview of the submission methods available.

# Introduction

Invoices are submitted to the Tungsten Network system in data files. Invoice data files can contain any number of invoices. The basic steps for submitting invoice data files to the TN system are as follows;

* Invoice files created using the client's accounting system's export function or any other available methods
* Invoice files automatically submitted to TN by using integrated function of client's accounting system

OR

Invoice files stored in temporary submission directory and subsequently submitted to TN by a separate automated or manual process

* Tungsten processes the submitted invoice files
* Tungsten sends file processing notification email

There are several methods for submitting an invoice file to the Tungsten Network system:

* Manual file submission using the web-based interface at www.tungsten-network.com
* Automated or manual file submission via SFTP, HTTP(S)-POST, AS2
* Automated file submission across an EDI network

# Manual Web Upload

www.tungsten-network.com

To use this method, the client will need;

* an Internet connected computer
* Internet Explorer 11 or above, or Mozilla Firefox 57 or above, or Microsoft Egde 42, or Google Chrome 57 or above
* Tungstenlogin credentials (Tungsten Network AAA number, Username, Password and appropriate digital certificate installed in the browser

After logging into the TN system, the client simply chooses the file submission option from the main menu. Files are selected using a standard file selection dialog box and transferred between the client's local computer or network to the TN system via a secure SSL session across the Internet.

# HTTPS POST

To use this method, the client will need;

* an Internet connected computer
* The URL of the TN HTTP(S) Gateway server
* Internet Explorer 11 or above, or Mozilla Firefox 57 or above, or Microsoft Egde 42, or Google Chrome 57 or above for manual POSTing  
  OR  
  Business to business (B2B) integration software capable of automating a HTTPS POST
* Tungsten NetworkHTTP POST login credentials (Tungsten Network AAA number, user ID and password)

Specific configuration details will be made available if the client chooses this file submission method.

# SFTP (Secure FTP)

To use this method, the client will need;

* A SFTP client or an accounting system with an automated SFTP function capable of using SSH-based Secure FTP
* the DNS of TN SFTP server and client specific transfer directory name
* TungstenSFTP credentials (user ID and password)

The client simply uploads the files to our SFTP server as they would in any SFTP server using either their SFTP client or by configuring their accounts system's SFTP function.

Specific configuration details will be made available if the client chooses this file submission method.

# EDI

Being format independent, the Tungsten Network accepts data in any EDI format. We are currently member of Liaison Exchange Value Added Network (VAN). Clients can send data to us directly via VAN, or, if a member of another network, an inter-connect can be setup. Our EDI details will be made available if the client chooses this file submission method.

# AS2

Data can consist of [Electronic Data Interchange](http://en.wikipedia.org/wiki/Electronic_Data_Interchange) (EDI) messages and may be of any other message type as well.

An implementation of AS2 involves two machines, a [client](http://en.wikipedia.org/wiki/Client_%28computing%29) and a [server](http://en.wikipedia.org/wiki/Server_%28computing%29), connecting in a point-to-point fashion over the Internet. AS2 creates an “envelope” for the data, allowing it to be sent securely using digital certificates and encryption. The client sends data to the server (e.g. a [trading partner](http://en.wikipedia.org/w/index.php?title=Trading_partner&action=edit&redlink=1)); on receipt of the message, the receiving application sends an acknowledgment or MDN ([Message Disposition Notification](http://en.wikipedia.org/wiki/Message_Disposition_Notification)) back to the sender.

# Security Considerations

www.tungsten-network.com utilise the same Secure Sockets Layer encrypted channel with server and client certificates. This is extremely secure, ensuring privacy and integrity of data.

The TN FTP servers are standard FTP servers and offers basic connection authentication with user names and passwords. However, as its standard, the user name and password are transmitted in clear text – the same when files transferred using the FTP protocol. Thus, without digital certificates or any kind of encryption FTP cannot be considered fully secure.

SSH-based FTP is protocol runs on a secure channel - no clear text passwords or file data are transferred.

EDI transmits information without encryption but uses private point-to-point networks - the data does not travel over the public Internet. It can therefore be considered secure.

# Delivery Confirmation

However, invoice files are delivered to the Tungsten Network system, they are processed in the same way and appropriate confirmation emails are sent to the email address specified by the client. The confirmation email details, for each invoice file received consists; the number of invoices processed, how many were accepted, how many were rejected and if any were rejected, the reason for rejection.

# Further Information

If you require further information on invoice file submission methods or service to the Tungsten Network please either contact your Account Manager or send an email to your implementation specialist.