Technical specification and pre-requisites

06 August 2020

Contents

Foreword

This document supersedes all other previous technical specifications and versions of this document or technical information provided in whether written or verbal. Please refer to this document if you plan to make any changes to the platform your implementation runs on, or changes to connected systems for example your ERP or email system.

The current version of this document is available for download at www.idocuments.co.uk/technical/

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Feedback and Questions

If you have any questions, feedback or require any clarification on matters relating to this document or any aspect of iDocuments products or services then please email support@synantix.com

1. Introduction

This document describes technical information and pre-requisites for installation, implementation, support and ongoing use of iDocuments. It describes the minimum requirements for standard iDocuments applications, helping you with planning and sizing the systems environment in which you will be running iDocuments.

The information provided is regularly updated in line with technology developments and is based on a standard implementation; any customer specific code or variations may affect the guidelines provided in this document.

2. Related documents and information sources

Please also refer to the following important documents:

- iDocuments Specification and configuration documentation www.idocuments.co.uk/help/
- iDocuments Technical Specification www.idocuments.co.uk/technical/
- Support Guide www.idocuments.co.uk/supportguide
- The terms on which Synantix Limited licenses its software to customers is available online at www.idocuments.co.uk/terms-and-conditions

3. Requirements for installation and ongoing support

General

An internet connection is required in order to access, download, install, support or activate iDocuments.

We require RDP remote access to the customer's test and production servers in order to install the software and to provide on-going support.

We can utilize TeamViewer if your company has a full TeamViewer license. You will need provide us with a TeamViewer access code and password.

Online meeting applications such as GoToMeeting or WebEx are **<u>not</u>** suitable for this purpose. Please contact us for further information or assistance with this.

Permissions

A separate Service Account is required run and schedule Microsoft Windows scheduled tasks, this account should not have expiry date set.

The iDocuments accounts should have full local administrator Microsoft Windows user rights and dbo sys_admin account for SQL.

IMPORTANT NOTE

Access should only be granted when required and we recommend that it is disabled immediately after use.

4. Application licensing

iDocuments core module licensing is based upon the number of named active users and which applications those users have access to according to their Role. For further information on licensing contact Synantix or your reseller.

The number of users and applications is determined by the Roles and Page Rights linked to those Roles. For Example: Role 1 may have access to Purchasing and Expenses and that will count as 2 application licenses and Role 2 may have access only to Purchasing and that will count as 1 application license.

5. Data and System Security

The customer is responsible for having the necessary test and production systems configuration and environment to support iDocuments. The customer is responsible for implementing access and security controls, redundancy, firewall protection, back up, disaster recovery processes, procedures and other steps appropriate to their organization's IT security policy and business requirements. It is recommended that remote access to iDocuments system users is provided via a secure VPN.

6. Test and Live Environments

You must implement test and live systems so that you can test upgrades and systems changes before they are applied to your live system. From time to time we may ask you to copy live system to the test environment in order for us to investigate and correct any issues that you report.

7. System Functionality and Performance Testing

Thorough system testing should be carried out by the customer including functionality, performance and load testing to ensure response and processing times are acceptable to your organization.

8. User Acceptance Testing (UAT) and Go-Live Readiness

As part of the implementation process, we are upon request able to assist with preparation of test plans and scripts to assist with User Acceptance Testing (UAT) and specific note should be made of: Go-Live Readiness Assessment Checklist.

9. Penetration testing (Pen Test)

The customer should carry out levels of penetration testing (sometimes referred to as 'pen test') appropriate to your particular organization's IT security policy and business requirements, in order to identify and prevent security weaknesses which potentially allow unauthorized access being gained to your company's data and systems. This is particularly important if you are planning to publish the application directly externally via the internet.

10. Disaster recovery planning

We recommend you have in place an appropriate disaster recovery plan and we can provide advice on implications for iDocuments if required.

11. Live environment access and change control

Access to your live production environment software and database must be strictly controlled. Any access should be restricted and controlled. If we are required to investigate and make change to your live system we request that you your live system and database to a test environment rather than applying changes directly to live system. Any changes will be applied to that test environment and then subsequently migrated to live using iDocuments Production System Change Approval form to give us authorization to make changes to your production system.

The Production System Change Approval form is intended to be used by iDocuments customers in order to give Synantix authority to make changes to the customer's production system environment. It is the responsibility of the customer to ensure all such changes have been thoroughly tested using appropriate test scenarios and test data in a test environment before the changes are applied to your production system.

12. Installation – information to be supplied by the customer

We will provide an installation pre-requisites document which will describe the information we will require in order for us to carry out the installation of live and production iDocuments systems. The information required will cover:

- Remote access information and details
- iDocuments application server
- ERP/Finance system server
- Email server details (for email alerts and emailed supplier invoices)

13.   Server prerequisites

It is recommended that iDocuments application is installed on its own dedicated server or servers (you may choose to have separate application and database servers) where the following server components must be installed:

- Windows Installer 3.1
- Microsoft .NET Framework 4.0
- Microsoft Chart control for .NET 3.5
- Microsoft OPENXML SDK V2.0
- Microsoft ASP.NET
- Microsoft IIS 8 or above
- SQL server database (Or have access from another server)
- SQL Server Management Studio
- White Peak SMTP Diagnostics
- TortoiseSVN
- Google Chrome (occasional requirement for diagnostics/browser compatibility testing)
- Microsoft Visual Studio for Applications
- **See also section Integration with ERP/Finance Systems in this document** – further additional component may be required according to which ERP you operate such as SAP Business One client for users of that ERP

Various applications are required to install iDocuments and prepare the system for ongoing support once the customer is using the system in production. The applications used include listed below:

- **WinRAR/WinZip** – One or both are installed for compression of the initial software download.
- **TortoiseSVN** – this is source code plugin and is used to download patch releases and new functionality to your iDocuments system. This product is installed under the GNU GPL (General Public License Agreement) and more information can be found http://tortoisesvn.net/docs/release/TortoiseSVN_en/tsvn-preface-source.html and https://tldrlegal.com/license/gnu-general-public-license-v2

14. Supported server operating systems

iDocuments runs on <u>ONLY</u> the following Operating Systems:

Microsoft Windows Server 2012/2012R2 and later versions.

15. Supported MS SQL server databases

iDocuments runs on <u>ONLY</u> the following Databases:

Microsoft SQL Server 2012 Standard/Enterprise and later versions.

16. Minimum requirements for IIS and SQL servers

The following is a minimum recommended server specification for IIS and SQL servers. The actual specification will depend on such factors as the numbers of users, volume of transactions and performance of connected systems such as your ERP system. Performance and load testing should be carried out before you go live with iDocuments application.

Item	Requirements
Processors	2 x Duo Xeon 2.66 GHz or equivalent processors
Disk Configuration	100Gb RAID 1 for IIS application server
	20Gb RAID 5 for SQL database server
	Note sizing for PDFs and attachments may need to be done separately.
RAM	Minimum 16 Gb on both MS IIS and SQL servers

17. Minimum requirements for document capture OCR server

Depending upon the volume of documents being scanned we would normally recommend a dedicated server for the iDocuments.AI document capture applications. Performance and load testing should be carried out before you go live with iDocuments application.

Item	Requirements
Processors	Intel i7 3rd generation and above – at least 4 physical cores
Disk Configuration	1TB per 1 million pages
RAM	16 Gb or more
Requirements	Microsoft SQL Server – 2012 or above Windows Server 2012 or above .Net Framework 4.5.2 or above IIS 8 or above ASP.NET 4.6 or above

18. Database sizing guideline

Individual customer requirements will vary, however, the following guidelines may be used for database sizing. The actual disk space requirements will be based on document average scan sizes, document volumes across all companies and document retention periods.

- Initial database requirement 5 Gb
- An example annual database requirements would be:

10,000 Purchase Orders with scanned invoices per annum	3 to 5 Gb

- So over 5 years this would be:

(5 years * 5 Gb) + 5 Gb	30 Gb

19.   SQL database maintenance plan

We recommend the following:

- A minimum of nightly full database back-up
- Maintenance task to shrink and re-organize the database and log file to be run once a week

To optimize indexes, you may also:

- Run SQL server Profiler when the system is in use for 10-15 minutes
- Save the output from it as a trace or XML file
- Feed Database tuning advisor with output from previous step
- Run analysis on database
- Follow any additional recommendations

In order for our Technical Support team to investigate any performance or database issues you encounter we will require access to SQL database and permission to run SQL profiler.

20. Microsoft Exchange email integration requirements

Introduction

Microsoft Office 365 or Exchange email integration is used for alerts (all iDocuments applications), emailing Purchase Orders to suppliers from PO list screen, receiving supplier invoices (Purchasing application see section on Mailbox scanner for invoices) and Calendar integration (Resource Allocation module).

Microsoft Exchange/Office 365 is required

The minimum release level is Microsoft Exchange 2010 SP1 and 2013 or MS Office 365.

Email parameters for alerts

- The following information is required to implement automated email alerts from iDocuments.
- We recommend that you set up a specific email such as idocuments@customername.com
- In the information below password and username are optional if the server does not require authentication.
- If SSL please inform us when providing the details below

```
<add key="MailServer" value="smtp.HostedService2.Net"/>

    <add key="Mailpassword" value="1password"/>

    <add key="MailuserName" value="idocuments@customername.com"/>

    <add key="Mailhost" value="smtp.HostedService2.Net"/>

    <add key="MailPort" value="25"/>

    <add key="MailBody" value="Test Body"/>

    <add key="MailSubject" value="Test Subject"/>
```

21. Setting-up Rapid Invoice Entry and Purchase Invoice Scanning

In order to set up the system, iDocuments needs to be pointed at a folder containing scanned invoices. This is defined by Company Setting, you will require to have a folder for each company – you need to configure your scanner to deposit scanned images in the appropriate company folder as PDFs. It is recommended the folder for testing purposes is on the same server as the iDocuments web app.

Then advise iDocuments the folder location in order for these to be set up as part of the configuration, for example:

S:\SAP\PATH\ScannedImages\Company1
S:\SAP\PATH\ScannedImages\Company2

22.   Email attachment capture

There is an optional module with iDocuments Purchasing that enables suppliers to email invoices to a nominated email box. The connections are configured within the application whereby the minimum requirements are either Microsoft Exchange 2010+ or the hosted Gmail service (personal or corporate).

NB This module is not supported on Microsoft Windows 2008.

The application uses a "Q & A" methodology where by asking the mail server if there are any new emails and of those found if any contain PDF attachments. There are instances where the files are classified by the hosting service as "inline" (as part of the body of the email) rather than subsequently attached files – we have no control over this so in the cases of this occurring, a setting can be enabled to also request such files to be downloaded.

In both cases, ONLY PDF files are accepted and any remaining files are ignored. If at the end of this analysis it results in no files, an email can be sent to inform a user of this fact.

The process works as follows:

- Suppliers email invoices as **PDF attachments** to nominated email, e.g. invoices@domain.com
- You **must have one** email address for **each company** you are processing
- PDFs are stripped from the email and saved into a temporary Microsoft Windows company specific folder (this is defined in iDocuments System Settings)
- Scanned paper invoices are a saved from scanner into **the same** temporary company specific Windows folder NB PDF are stored here only until the step following completes when they are removed
- There is an additional step here if you are using iDocuments Intelligent Invoice Capture OCR facility (see next section)
- A scheduled iDocuments tasks stores the PDF in the iDocuments database and presents the scanned document to the appropriate iDocuments user for coding and removes the PDF from the temporary company Windows folder (step above)
- Each scan is audited and can be reviewed from within iDocuments reporting
- Any error emails are issued

23.   iDocuments Capture (Invoice OCR)

There is an optional module with iDocuments Purchasing that enables OCR (Optical Character Recognition) to be performed prior to the invoice appearing in iDocuments. This module can be taken alone or integrated with the Email Attachment Capture module described above.

The process will scan the file for field matching and, if successful, subsequently populate the coding of the invoice automatically ready for the user to check prior to submission into the approval workflow.

In order to obtain the greatest results it comes with a Rule Builder Wizard (iDocuments OCR Client) of which more information can be supplied on request. **Note:** The iDocuments OCR Client is a Microsoft Windows application and runs only on Windows.

In addition to the configuration there are a number of recommendations that should be followed to obtain the best possible outcome:

- The PDF invoices should be of a good quality clearly defining the supplier name, Invoice number, invoice date and amount due and the purchase order number
- The Supplier name should correspond to the Purchase Order Number
- Low contrast documents can result in poor results and take longer to process
- Font sizes of less than 6 points can limit the accuracy
- Handwritten documents cannot be recognized
- Increasing scanned images to 600 dpi and using greyscale may improve the results as resolutions below 300 dpi may result in poor results
- Suppliers should be encouraged to send high resolution PDFs which are lined up correctly and not skewed
- Where suppliers submit paper based invoices and these are scanned internally we advise using only one invoice per PDF, this again should be lined up correctly and not skewed and the quality must be good in order the data to be extracted accurately
- Automatic splitting of a PDF relies on being able to successfully identify an Invoice Number using configurable rules
- Invoices should be submitted in English language only

24. iDocuments scheduled tasks

The iDocuments programs listed below are designed to be run as automatically scheduled tasks using Microsoft Windows Task Scheduler. These applications are:

- Emailer *for daily or weekly email reminders*
- IDocuments mailbox scanner *for extracting PDF invoices from emails*
- IDocuments Capture OCR console *for scanning of invoices for data extraction*
- Scanned Invoices *to import PDF invoices when not using OCR*
- SunImport *sync engine for Infor FMS Sun 5 and above*
- IDocuments SAP Engine *to sync between SAP Business One and iDocuments*
- IDocuments Importer *for synchronizing data from Enprise, Dynamics, NAV, Sage etc.*

The actual program or programs used depends on your organization's implementation of iDocuments.

You should refer to the relevant Microsoft documentation for specific information regarding Microsoft Windows Task Scheduler. You must be logged on as MS Windows administrator to perform these steps. If you aren't logged on as an administrator, you can only change settings that apply to your user account.

Using MS Windows Task Scheduler wizard you create a task that executes one the iDocuments programs for you automatically, according to the schedule you choose. For example, if you wish to run the Emailer process on a certain day each week, you can schedule a task that opens and runs the program automatically.

25. iDocuments application timeout

iDocuments system timeout is controlled by Microsoft Internet Information Services (IIS) Manager settings which can be changed as follows:

Select the application under Microsoft IIS Manager and click Session state
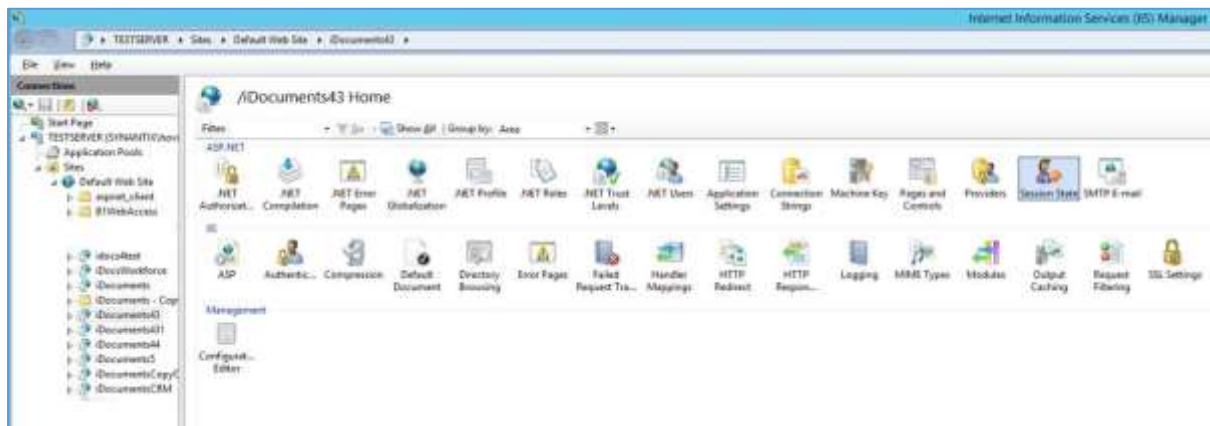
Right at the bottom of the screen you are taken to there is a box to enter timeout in minutes. You can also tick the regenerate tick box.
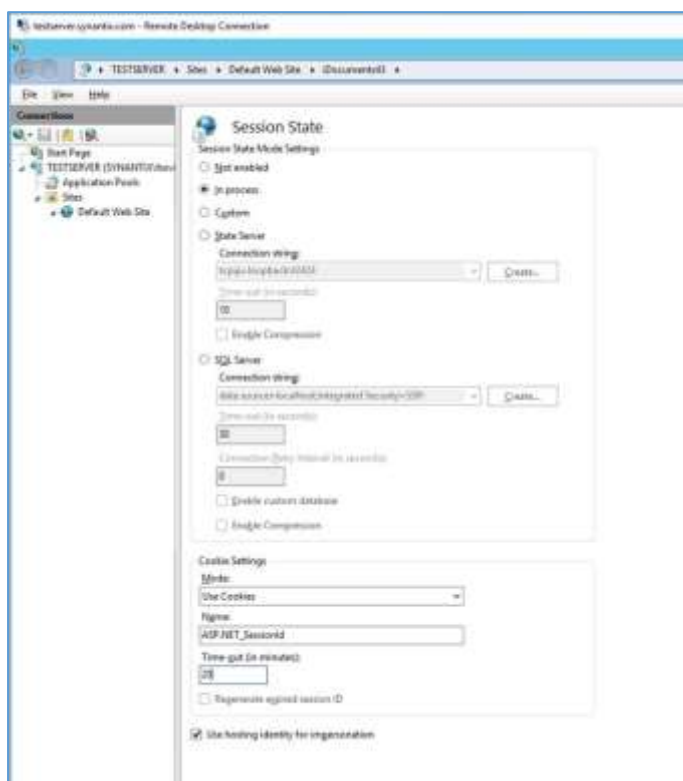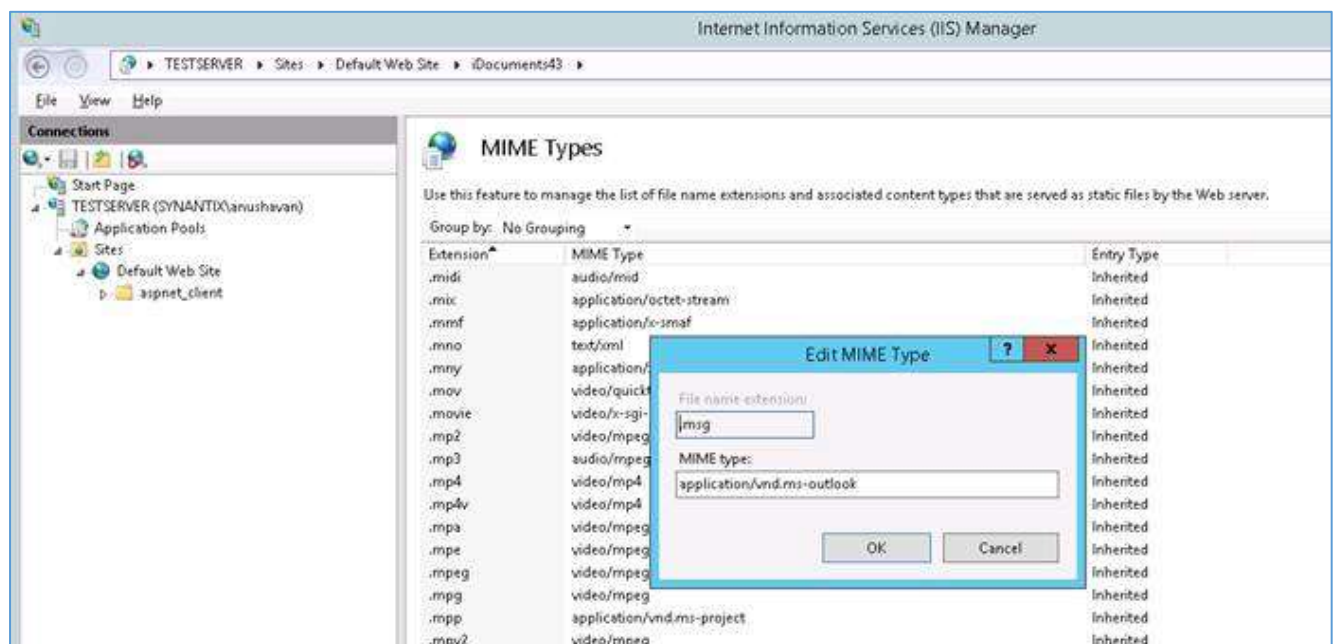
26.   Attaching Microsoft emails to documents

Email attachments to Purchase Orders, Requisitions, and Contracts etc. is not as default allowed by Microsoft Internet Information Services (IIS) Manager. This can be amended as described below if your organization wishes to permit email attachments.

Microsoft IIS Manager – MIME types
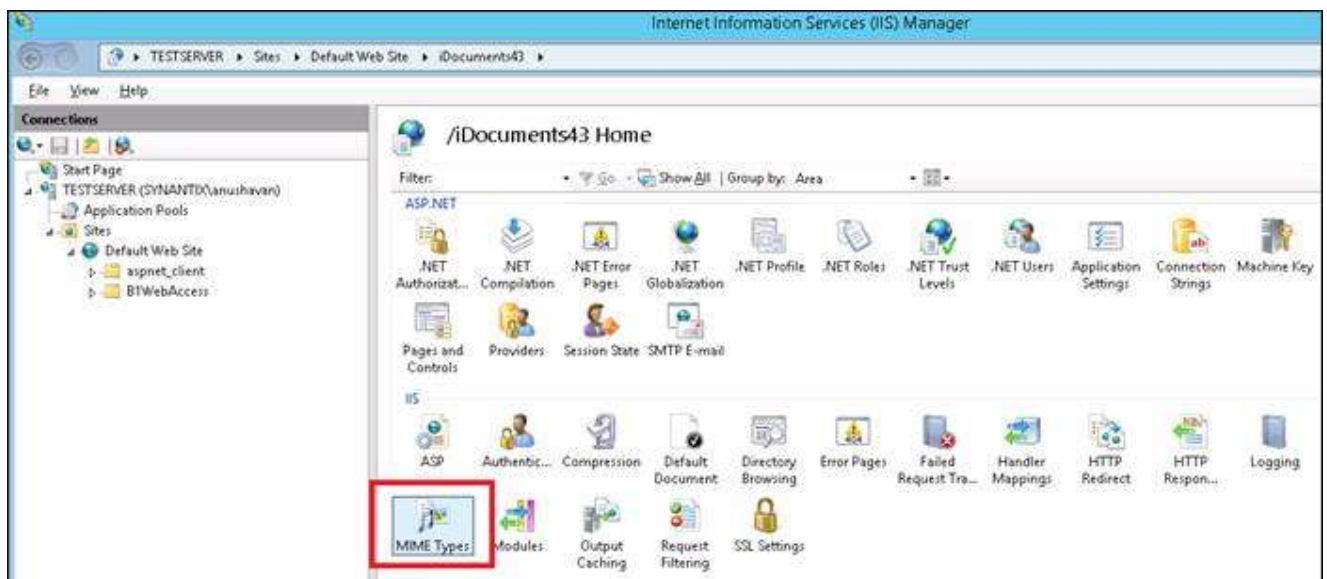
Add .msg type extension

27. Browsers and desktop components

- iDocuments runs in these browsers:
  - Internet Explorer 11
  - Microsoft Edge
  - Chrome desktop latest version
  - Firefox desktop latest version
  - Safari Mac latest version

- Adobe PDF reader (required to view scanned invoices and other documents)
- Microsoft Excel (UK and US version) for data exports from listing pages and reports.

Note: The iDocuments OCR Client is a Microsoft Windows application and runs only on Windows.

28. Running iDocuments in Internet Explorer (IE)

IE users must access the iDocuments site with a FQDN (Fully Qualified Domain Name) or using 'Tools' menu and choose 'Compatibility View Settings' on that dialog at the bottom is a setting 'Display intranet sites in compatibility mode' – you must uncheck this.

Additionally, under 'Tools' and 'General' tab - you must ensure it is set to clear cache each time a page is visited, as shown in example below:
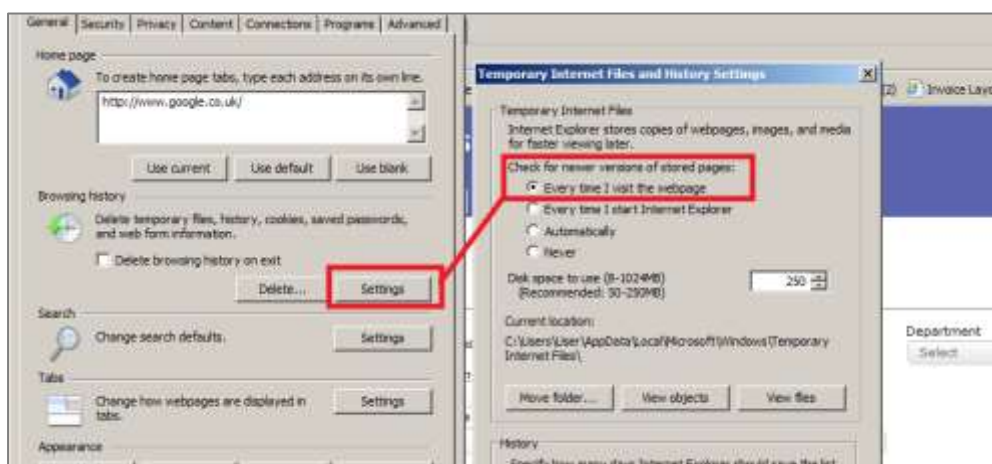
29. Using Rapid Invoice function with Internet Explorer (IE)

The following instructions should work for the browser, to avoid opening of PDF's inside IE instead of asking to save each time.

1.   In Internet Explorer you will first have to click on a file of the type you want to open automatically next time.

2.   This will give you the Open/Save prompt.

3.   Select the Save option.

4.   Then in Internet Explorer click Tools

5.   Under Tools click the View Downloads option

6.   You will see a popup containing the file that you just downloaded.

7.   Right-click on the file

8.   In the options presented, make sure to un-check the option labeled: Always ask before opening this type of file

30.   MS Windows User Authentication/Active Directory

To activate Microsoft Windows Authentication you should enable Windows Authentication using Microsoft Internet Information Services (IIS) Manager.
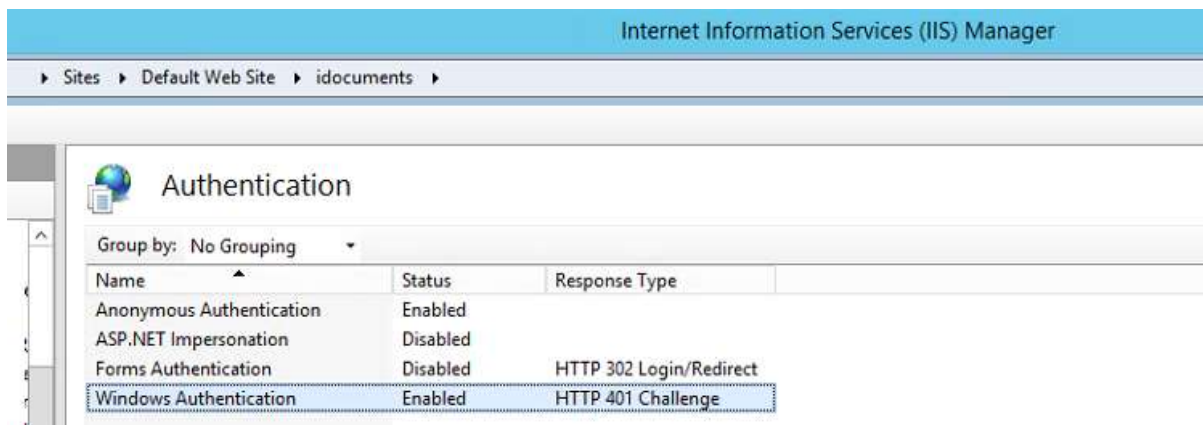
Also, enter the user account details for each user in the iDocuments Edit User form under iDocuments Admin menu as highlighted in red box below. This form and field are found by following menu Admin>User Setup>Users in iDocuments Administration – see screenshot below (which may vary depending upon the version of iDocuments you are running).
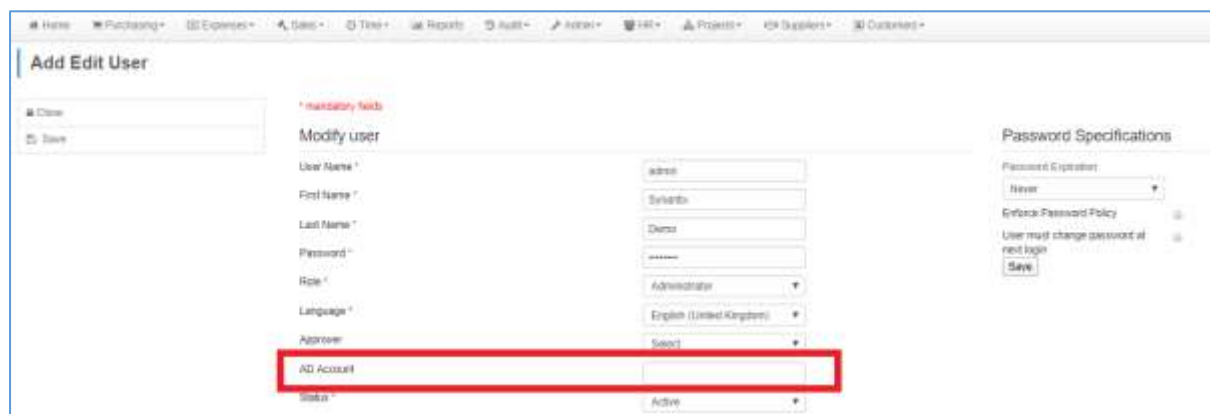
Users should then access the iDocuments system with their usual URL with suffix Home.aspx as shown in the example below.

http://synantix.com/iDocuments/Home.aspx

The URL with suffix Login.aspx is also available for non-AD users such as iDocuments System Administrator to login with iDocuments credentials.

http://synantix.com/iDocuments/Login.aspx

NOTE

Occasionally when MS Windows authentication is enabled it shows a popup window requesting the user to enter credentials. To solve this issue add IP address or server name (depends on what is being used) in local intranet. If the problem continues then follow the steps below:

- Click on "Authentication".
- Right click on "Windows Authentication" and then click on "Providers".

31.   Using Google Maps with iDocuments Expenses

iDocuments Expense web application integrates with Google Maps to calculate expense journey distance. Important Note – in order to use this your organization requires a Google Maps Key to use this in live system.

32.   iDocuments apps for iPhone® and Android™ phone

How to download & Setup of the Mobile App for iPhone and Android phones

The iDocuments app for iPhone and Android phones can be downloaded from the Apple App Store (iOS) Apple Store Link or the Google Play Store (Android) Google Play Link. For data security reasons a user may only be bound to one device at a time.

1.   Search the app store on your device for 'Synantix' or 'iDocuments'

2.   Download the top result should be 'iDocuments' in the Business category (iOS ONLY: do not download the app titled 'Approvals – for iDocuments', this is the legacy version).

Once downloaded, launch the application and you will be prompted to configure the device.

1.   It will ask for the server; enter your server hostname

(e.g. demoserver.idocuments.co.uk:4343).

If you are unsure of your hostname, please contact your administrator.

2.   First name / Last name / Email address fields are to allow the iDocuments admin to identify which user they should bind the request to but are required fields.

3.   Send the Binding Request!

4.   Admin users will be alerted to the new request.

5.   While running, the app will periodically check with the server to see if it has been authorized.

iDocuments app for iPhone®

- Available for iOS 10.3 or above iPhones (note that the app is not designed for use on iPad)

- An Apple App Store account is required to download the app

- The app uses internet, storage, location and camera services, and requires these permissions on your device

iDocuments app for Android® phone

- Available for Android 7.0 (Nougat) or above

- A Google Play Store account is required to download the app

- The app uses internet, storage, location and camera services, and requires these permissions on your device

NOTE – Due to the very large number of Android devices in existence, we cannot be certain that the iDocuments app will run on all Android devices, even if they are running the correct version of the operating system.

Data transfer between app and database

In order to transfer data between the central system database and the remote device a connection needs to be established to the iDocuments database from the app under the following scenario:

- A server to host a Windows WCF service is required, this can be the same as the IIS server or a separate machine entirely running a Windows Operating System

- Exposure of this service can be via one of the following methods:

    1. Direct web access secured with firewall/port forwarding and potential firewall rules to restrict incoming connections to only the service and only via an iOS/Android device
    2. Proxy server
    3. VPN

- A valid SSL certificate MUST be present for the connection

- With each synchronization and push notification created, the status of the pairing is checked before transferring any data

Server configuration

1. Pick a server for us to install the service on. This server MUST have access to the iDocuments and ERP databases across the local network. We are happy for this to be the iDocuments IIS server or another

2. Purchase an SSL certificate – not self-signed. This can be a wildcard one but it MUST cover the external URL over which the server (point 1) can be accessed

3. Install the certificate (point 2) to the local certificate store (the "Local Machine Context\Personal\Certificates" folder) on the server (point 1)

4. Choose a port on the firewall which is ONLY going to be used for app connections. i.e., 443 is not a good one as that is likely to host IIS

5. Apply rules on the firewall to open the chosen port (point 4) for the https protocol so there is an open route from the external internet to the server hosting the app (point 1)

Network communication requirements for mobile apps

The server where the Mobile Service is installed will require communication with both the server where iDocuments database resides and the server where your ERP database resides.

If Microsoft SQL is installed on the default port it will require inbound and outbound firewall rules for ports 1433 and 1434.

Web deployment

If your organisation's security policy does not permit exposing the service to the www it can be installed and hosted internally using internal IP/Address for synchronisation while connected to the Wi-Fi

If the server hosting the synchronisation service is within a separate domain/network to that of the file server for uploaded images then provisions need to be put in place to allow network access over a UNC path. If that is not possible, the service should be relocated internally and refer to the above paragraph.

Investigating communication issues

If mobile apps have connections issues, we recommend the following:

1. Check the EventViewer for error messages with the application name "Synantix Mobile Service"
2. Check the iDocuments database table "MobileBindings_Log" for error messages
3. You must ensure the user using the mobile app has a DEFAULT company ticked in the iDocuments user setup

33. Integration with ERP/Finance Systems

iDocuments integrates with a range of third party accounting and ERP systems, including those specified below. The degree of integration and approach depends upon the functionality in the ERP. For details of other ERP integrations please contact support@synantix.com

SAP Business One SQL & HANA

- SAP Business One v9 and above.
- A SAP Business One client must be installed with a dedicated SAP Business One Professional User License on the Microsoft IIS server to enable iDocuments to access the DI-API to post transactions to SAP.
- A 32 or 64 bit SAP client is used for this purpose.

NOTE 1 – if you require iDocuments to sync Purchase Orders and/or GRNs from SAP then iDocuments and SAP must be on the same shared SQL instance.

NOTE 2 – iDocuments creates a UDF in SAP that contains the file path of scanned invoices, so SAP users can view scanned invoices etc from SAP. If SAP installation is installed on another server paths will need to be updated to reflect the new servers.

Infor SunSystems

- Infor FMS SunSystems 4.3.3 and Vision Data Send – you need to provide us with a sample file for import into SunSystem 4. Or using SAF format file for Journal Import
- Infor FMS SunSystems 5.3.1 or above, including SunSystems 6, and Infor FMS 10. You will require SunSystems Connect (SSC) for posting of transactions (commitments, accruals and actuals). A user with Connect Admin rights will be needed in SunSystems and the SSC Service verified working for Journal Post from file

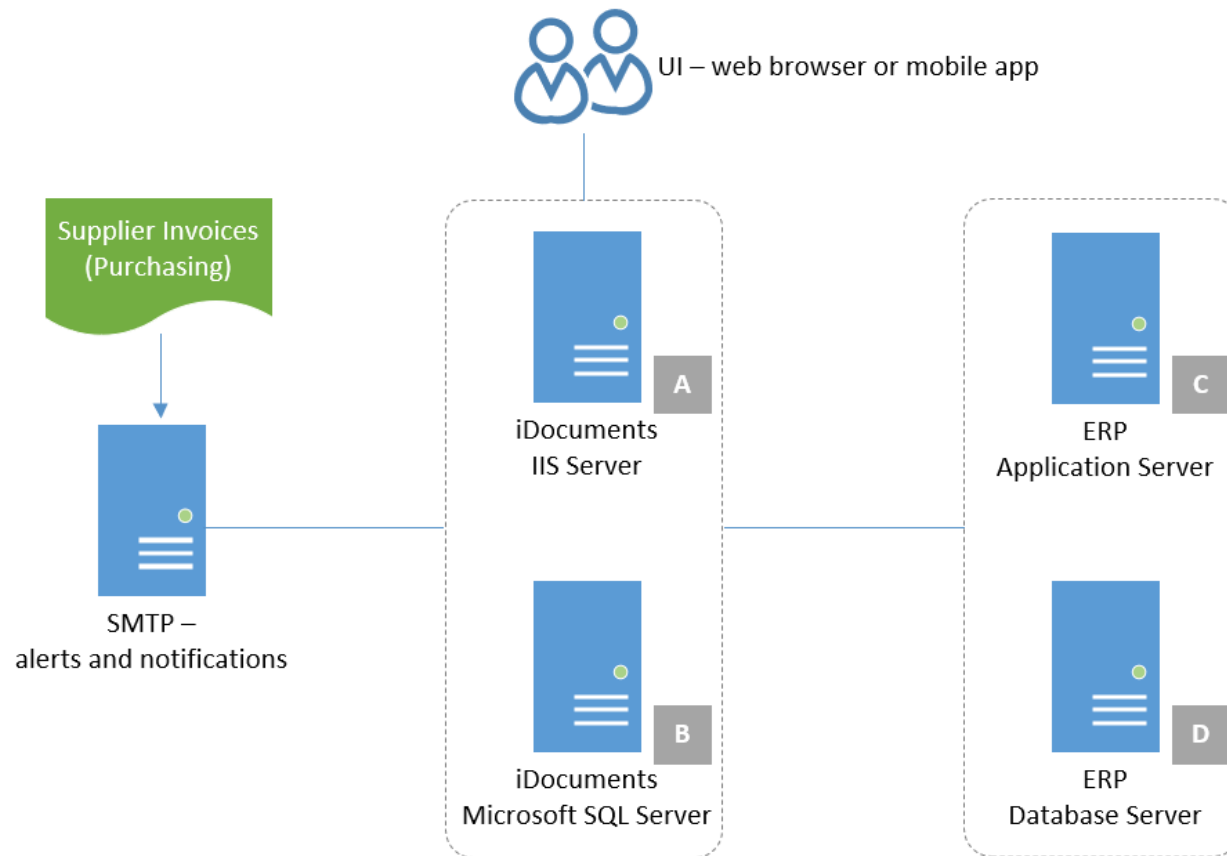## Exchequer

- Requires minimum of Exchequer v6.9

Microsoft Business Solutions

- iDocuments Connector is available for Microsoft Dynamics GP and NAV.

Sage

- iDocuments Connector is available for Sage 200, 500 and 1000.

34.   System Architecture Diagram

NOTES

1. We recommend that the iDocuments IIS server [A] is hosted on its own dedicated server to avoid conflicts with other applications.

2. This diagram may change depending on the ERP/accounting system iDocuments is integrated with.