VisibleThread

VisibleThread Readability and Email Server On-premise Troubleshooting Guide

Version 1.0 (July 2018)

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Introduction

This guide steps through the different features and operations of VT (VisibleThread) Readability. The goal of this document is to describe the correct operational behaviour of VT Readability under normal circumstances. Section 1 steps through the different features such as running scans or setting up your email server. Section 2 describes different ways of troubleshooting your VM installation to aid in describing any issues encountered to VT Support to assist in fixing them.

1.1 What is VT Readability?

VisibleThread Readability is a one-click plain language analysis tool for writers looking to improve the clarity and quality of their content. It identifies clarity issues in your documents, on your website or instantly as you type.

1.2 What is the VT Email Server?

The VT Email Server measures & improves the quality & readability of all communications. It helps embed Plain Language policy and programs in a way that requires no training for users.

Content creators submit MS Word and PDFs for scoring and readability analysis right from within their inbox. It couldn't be easier, just attach a doc to a mail and send it. You'll get the results in seconds. Users don't have to sign into any environment. This is a zero-friction way for contributors to score content. The Email Server can run in cloud or on-premise for organizations with sensitive documents.

This document is for an on-premise configuration.

1.3 Online Documentation & Help

You can find the most up to date documentation and help here:

http://support.visiblethread.com/forums/21077932- documentation

For common questions & queries, see our support help portal here: http://support.visiblethread.com

You can also submit help queries or report issues using a form on our support portal. Or contact us via email at support@VisibleThread.com

Section 1 – Verifying your Setup

This section details the different functionality of Readability and the correct behaviour it should exhibit. Follow the steps taken in each section to familiarise yourself with the correct operation of Readability, and to ensure the full operation of your VM.

1.1 Creating your account

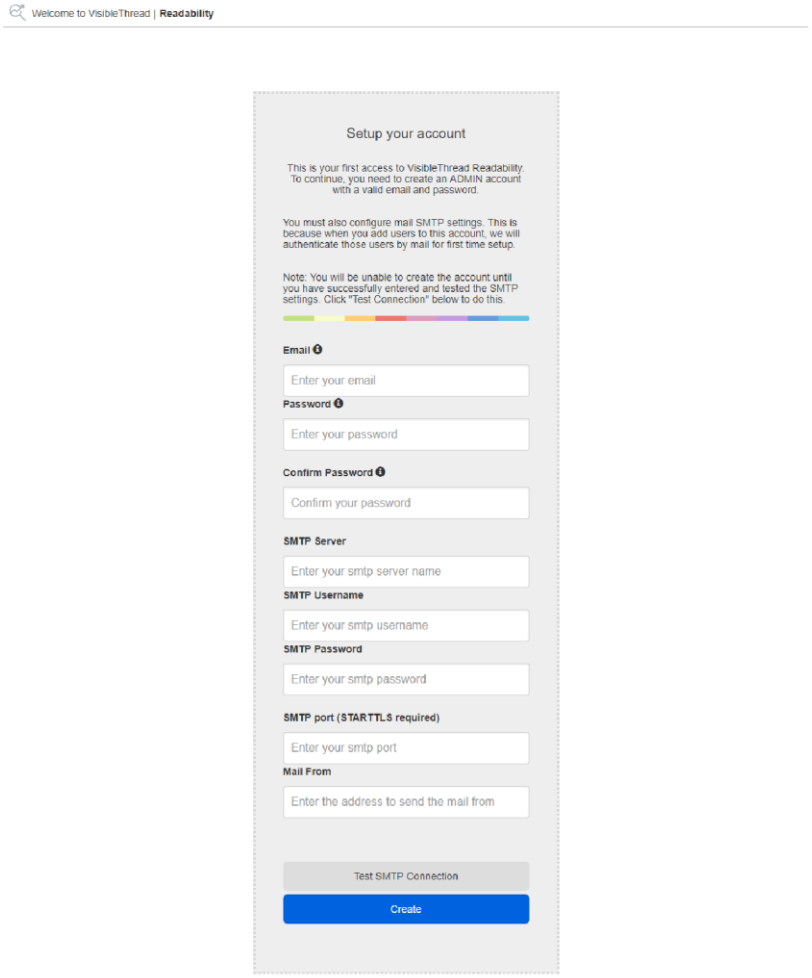

Figure 1.1.1 – Account Setup screen

When you first open the Readability application in your browser you will be presented with a prompt to setup your account with an admin user and SMTP Email server configuration.

The form contains the following fields to be filled out:

1) Email
2) Password

3) SMTP Server
4) SMTP Username
5) SMTP Password
6) SMTP Port
7) Mail From

Once these fields are filled in, click the "Test SMTP Connection" button to test the connection with the email server. Once the connection has been verified, the "Create" button is unlocked to save your settings and create the admin user.

1.2 Creating Users

After creating the admin account, log into the application for the first time using the same email and password used to set up the account. The admin panel is now available for use.

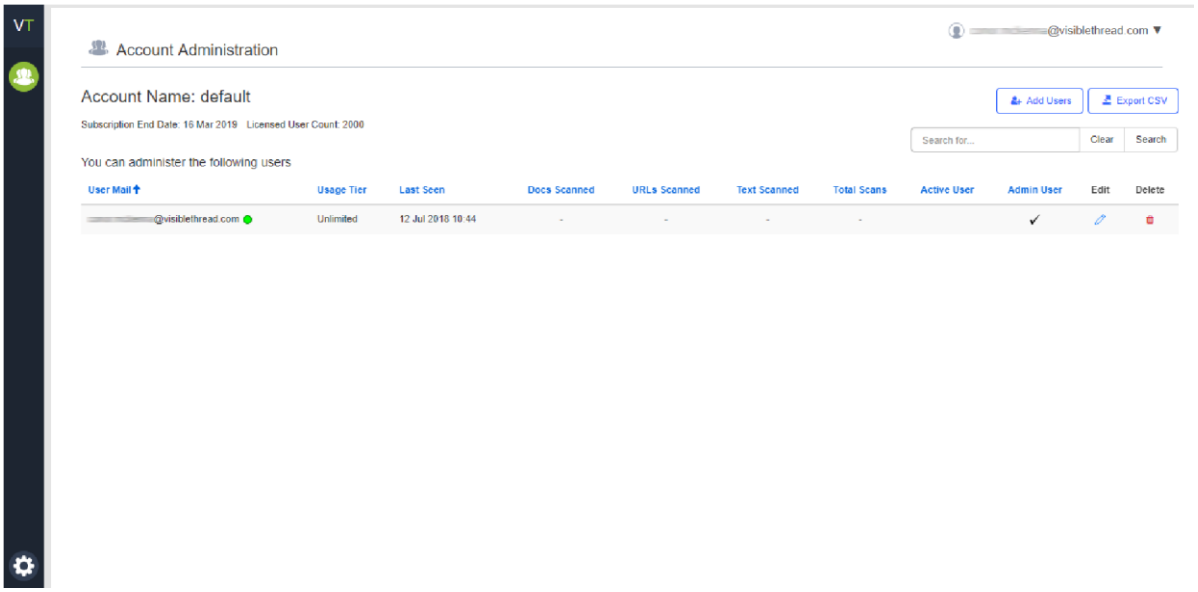

Figure 1.2.1 – Admin Panel

The existing user is already granted Admin privileges, and has the ability to add more users to the account. Admin users can also modify the roles of the other users to create more users with Admin permissions.

To add users, click the “Add Users” button in the top right of the page to open the dialog box:

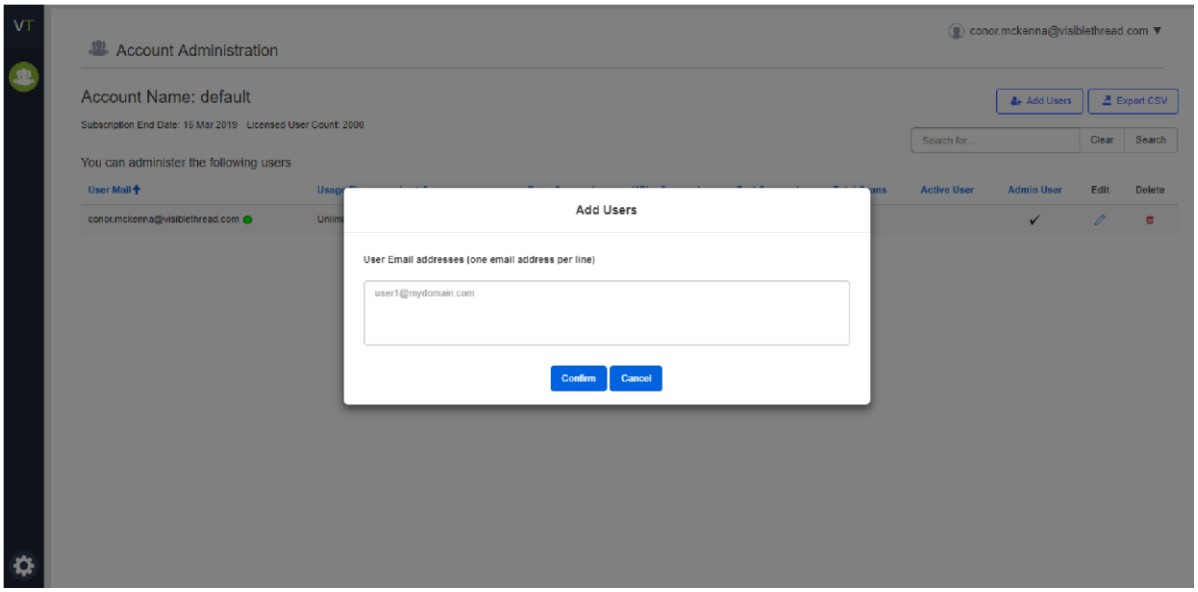

Figure 1.2.1 – Admin Panel

After adding a new user, an email will be sent to them prompting them to confirm their email and set their password. Once they have, they will have full access to the Readability application.

To edit user roles, click on the "pencil" icon on the right hand side of the row containing the user's email. To delete a user, click the "bin" icon.

1.3 Running a Document Scan

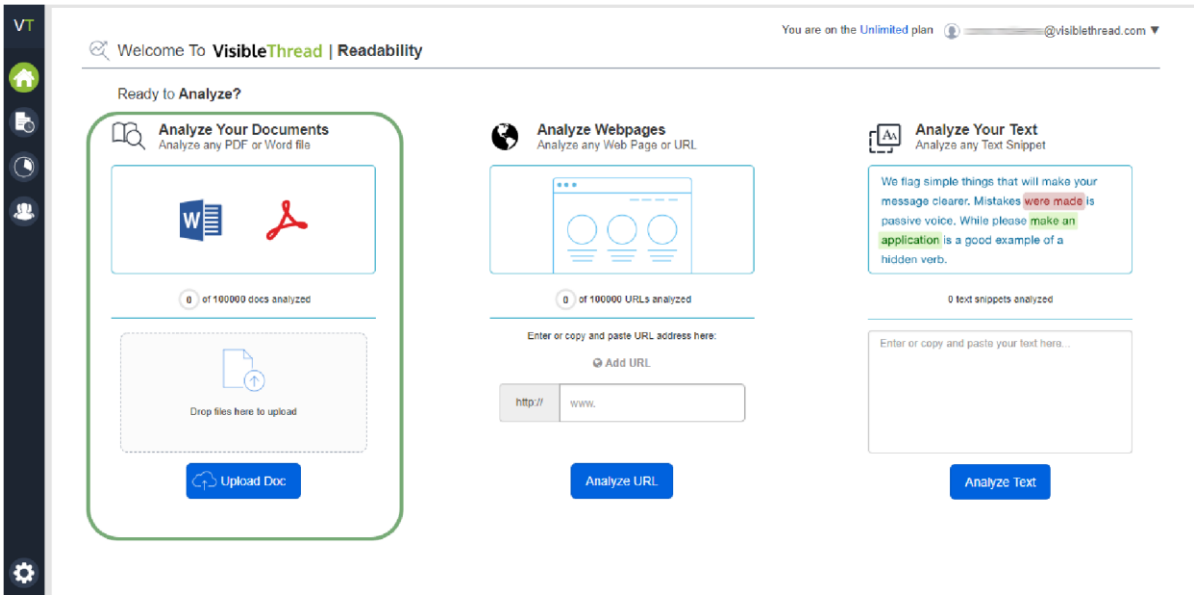

Figure 1.3 – Home Screen with Document Scan function highlighted

1. Navigate to home tab.
2. Either drag a compatible file (DOCX, PDF) onto the page or click the "Upload Doc" button to start scanning the chosen document.
3. The scan will begin and redirect the user to the scan in progress page. The user can only run one scan at a time of any type, and may cancel the scan from this screen if needed.

4. Once complete, the user is redirected to the scan results.

1.4 Running a URL Scan

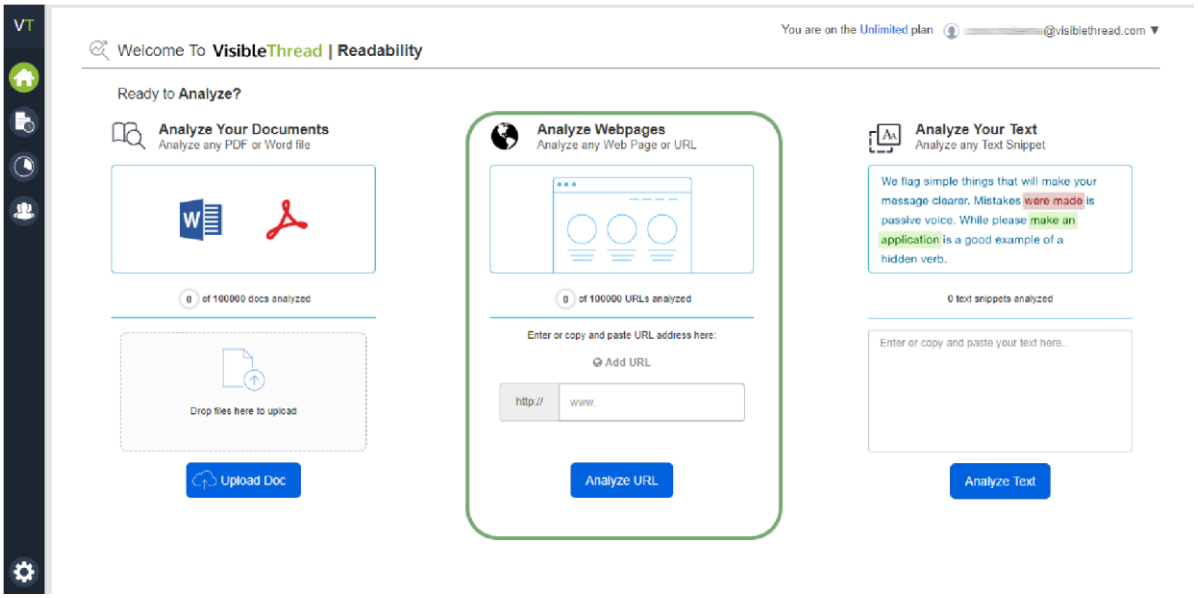

Figure 1.4 – Home Screen with Document URL function highlighted

1. Navigate to home tab.
2. Enter the URL of the desired page to be scanned and click “Analyze URL”.
3. The scan will begin and redirect the user to the scan in progress page. The user can only run one scan at a time of any type, and may cancel the scan from this screen if needed.
4. Once complete, the user is redirected to the scan results.

1.5 Running a Text Scan

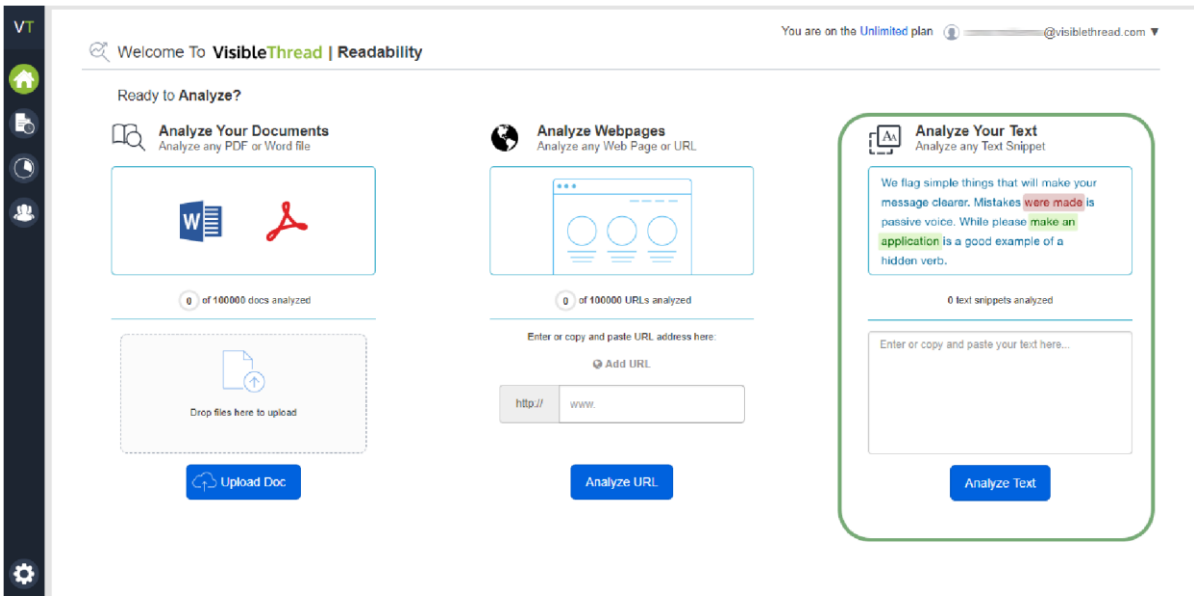

Figure 1.5 – Home Screen with Text Scan function highlighted

1. Navigate to home tab.

2. Enter the desired text to be scanned into the text field up to a maximum of 1,500 words and click “Analyze Text”.
3. The scan will begin and redirect the user to the scan in progress page. The user can only run one scan at a time of any type, and may cancel the scan from this screen if needed
4. Once complete, the user is redirected to the scan results.

1.6 Configure Inbound Email

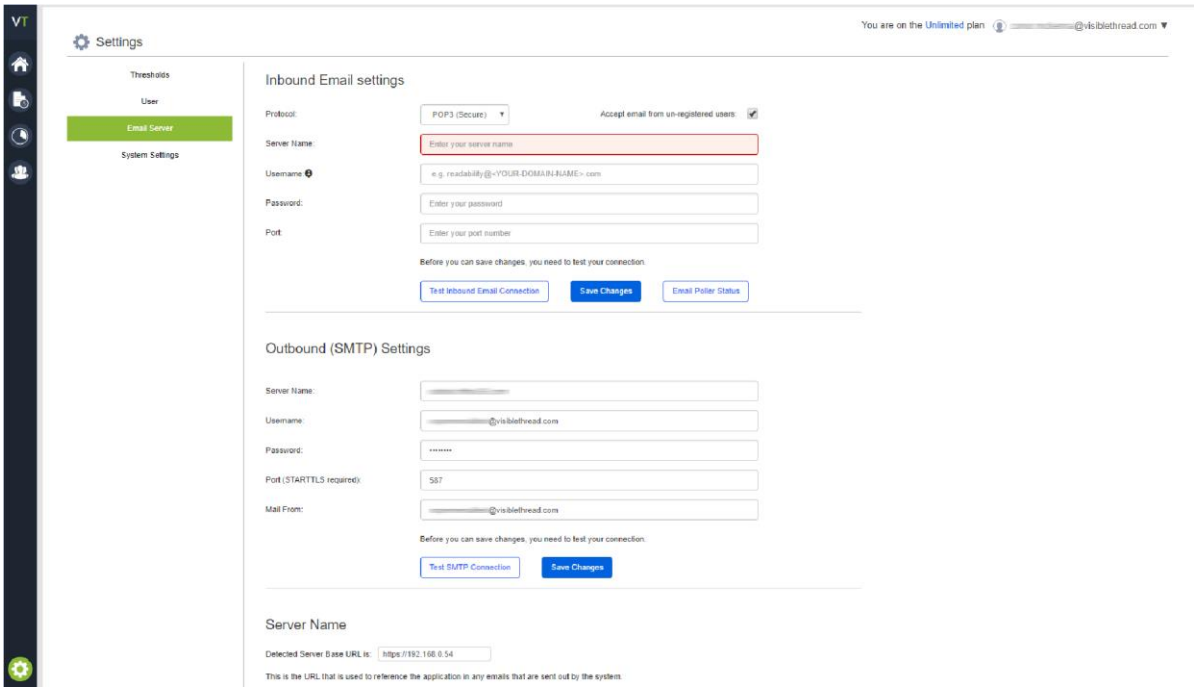

Figure 1.6.1 – Inbound Email Configuration Settings

Setting up the Inbound Email settings allows even unregistered users to send documents via email and receive scan results to their inbox. The inbound fields to be filled out are:

1. inbound_username
2. inbound_password
3. inbound_server
4. inbound_email_protocol = IMAP / IMAP Secure / POP3 / POP3 Secure
5. inbound_port = 143 (IMAP) / 993 (IMAPS) / 110 (POP3) / 995 (POP3S)

Once the correct settings have been entered, test the connection to the inbound mail server before saving. To ensure your inbound email system is working, check the email poller status to see when the mail box was last polled, and to see if any scans are queued for a long time.

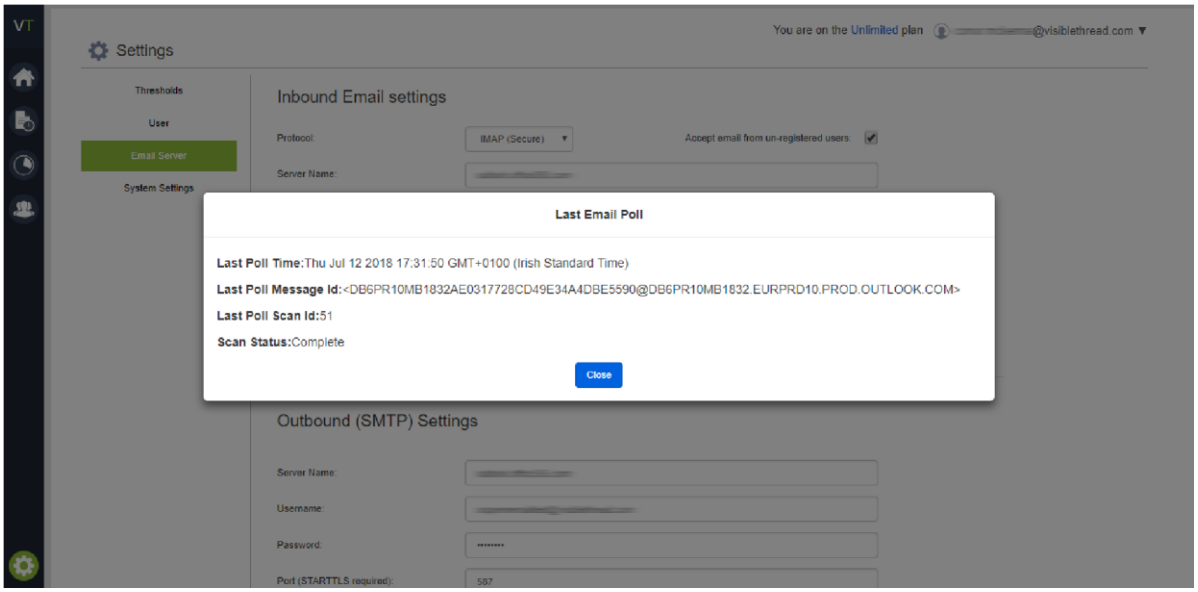

Figure 1.6.2 – Email Poller Status

1.7 Running a Document Scan via Email

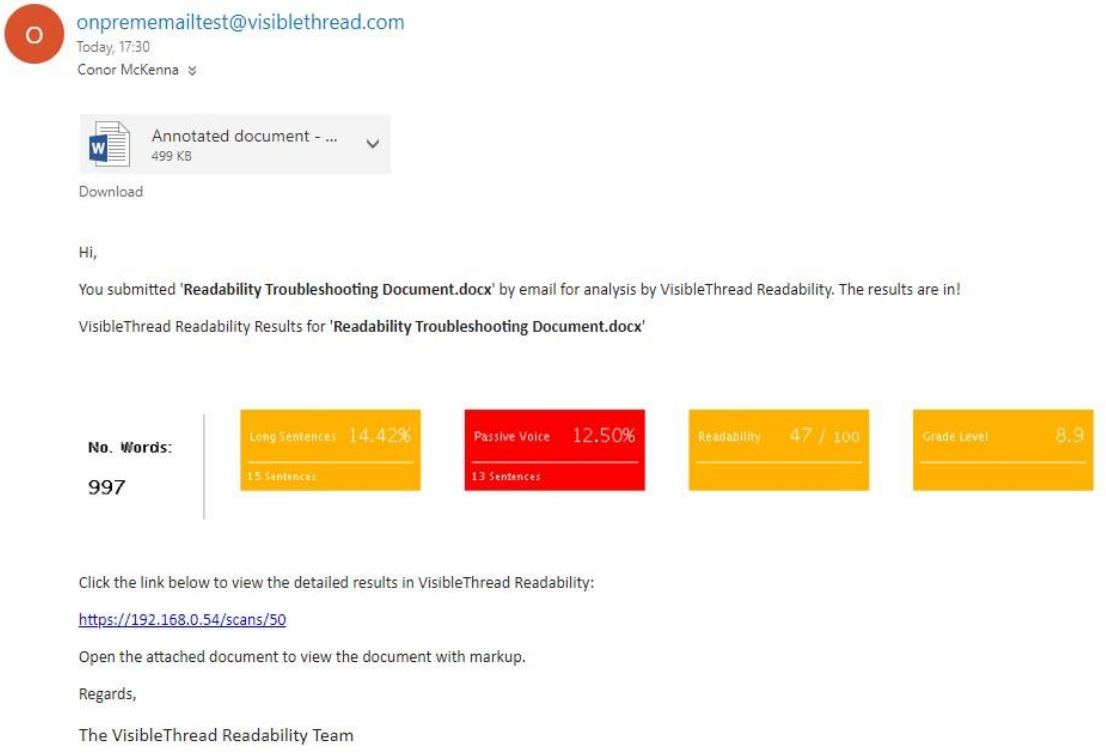

Figure 1.7 – Document Scan via Email Results

1. After ensuring the inbound email settings are correct and have been tested, log into your chosen email client.
2. Create a new email to go towards your inbound_username email address and attach the document you want to scan.

3. The scan results will arrive in the senders inbox shortly after.

Section 2 – Troubleshooting

This section details issues that may be encountered during the setup or use of the Readability VM and how to fix them or gather more information about them.

2.1 SSH into the VM

To access the files on the VM, you can SSH into the Readability VM's local address using a tool like PuTTY. To find out the VM's address, open the console in vSphere and type:

```
ifconfig
```

The VM's address and other connectivity information are displayed. To access the Readability application and connect to the VM, use the inet addr:

```
visiblethread@ubuntu-xenial:~$ ifconfig
ens32     Link encap:Ethernet  HWaddr 00:0c:29:87:59:fe
          inet addr:192.168.0.54  Bcast:192.168.0.255  Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fe87:59fe/64 Scope:Link
          inet6 addr: fd00:1cab:c0bf:9692:20c:29ff:fe87:59fe/64 Scope:Global
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:190488 errors:0 dropped:0 overruns:0 frame:0
          TX packets:78876 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:122614143 (122.6 MB)  TX bytes:24192181 (24.1 MB)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:4960486 errors:0 dropped:0 overruns:0 frame:0
          TX packets:4960486 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:359809295 (359.8 MB)  TX bytes:359809295 (359.8 MB)
```

Figure 2.1.1 – ifconfig output

Alternatively the IP Address is displayed in the Summary tab in vSphere.

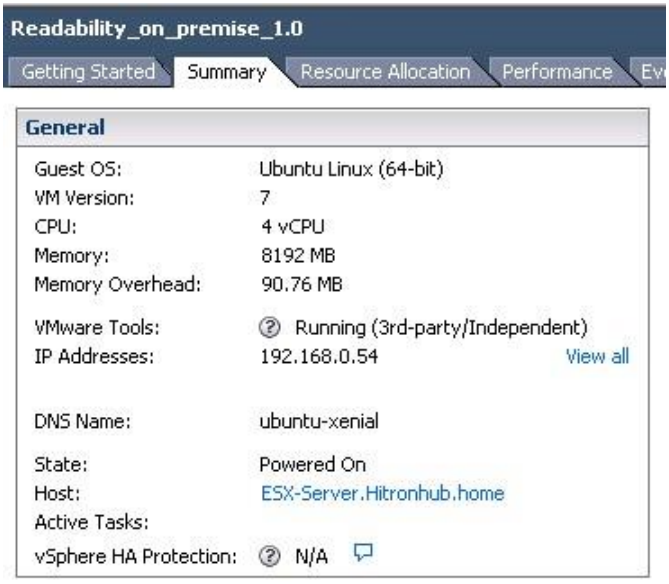

Figure 2.1.2 – vSphere Summary Tab

2.2 Log Files

There are 5 different log files used in the Readability VM:

- Readability: ~/readability/readabilityoutput.log
- Docs worker: /var/log/vtapi-doc-worker.log
- Scan worker: /var/log/vtapi-scan-worker.log
- Web worker: /var/log/vtapi-web-worker.log
- RabbitMQ: /var/log/rabbitmq/rabbit@ubuntu-xenial.log

To tail the output of these files in the console, use the "tail -f <file-name>" command to monitor the output of the chosen log in the console window.

An example of the output can be seen here:

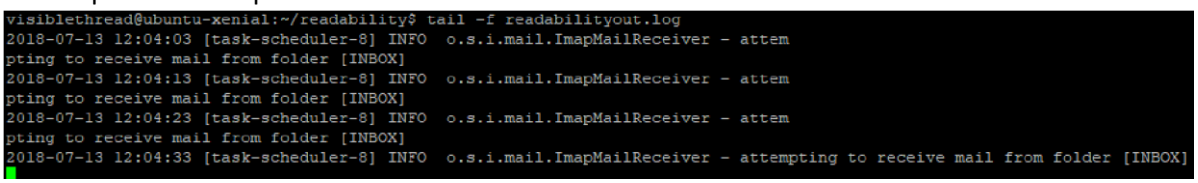

Figure 2.2 – readabilityoutput.log

The RabbitMQ log file requires sudo access to view, as a reminder the default password is "password".

2.3 Troubleshooting email setup

There are a number of items that can go wrong with the setup of SMTP/IMAP/POP3 connections. The first place to look for issue is always the readability log file.

2.3.1 SSL certificate issues

When using secure SMTP/IMAP/POP3 you can sometimes hit issues with Readability not being able to validate the SSL certificate installed on the server.

If this is the case you will see content similar to the following in the log file:

```
javax.mail.MessagingException: sun.security.validator.ValidatorException: PKIX
path building failed: sun.security.provider.certpath.SunCertPathBuilderException:
unable to find valid certification path to requested target;
 nested exception is: javax.net.ssl.SSLHandshakeException:
sun.security.validator.ValidatorException:
PKIX path building failed: sun.security.provider.certpath.SunCe


…


Caused by: sun.security.provider.certpath.SunCertPathBuilderException: unable to
find valid certification path to requested target
```

To get around this issue, we can manually add the new certificate to the trusted key store.

1. Log into the VM console and create a new directory installCert

```
mkdir installCert
```

2. Download the zip file here: https://docs.visiblethread.com/download/installcert-usn20140115.zip
3. Extract the file *installcert-usn-20140115.jar*, and transfer to the newly created installCert folder on the VM via FTP (eg: FileZilla).
4. Execute the following commands in the console:

```
cd ~/installCert/
sudo java -jar installcert-usn-20140115.jar <exchange server host name>
```

5. Press 'Y' when prompted to save the certificate for the exchange server in the key store. 6. Restart the Readability Application

```
sudo service supervisor restart
```

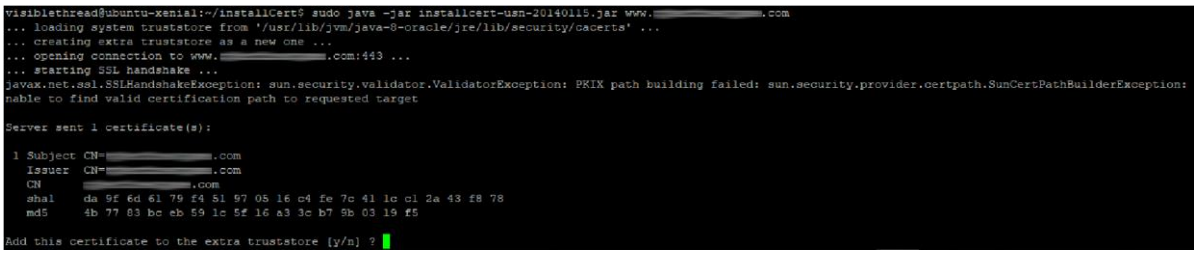

Figure 2.3 – Adding new certificate

2.3.2 Other email connection issues

Here are a few ways to diagnose email connection issues:

IMAP

1. Verify the readability server can connect to the email server:
   a. telnet <email server> **143**
2. Verify the credentials are correct..see example below (text in bold is entered by user):

telnet imap.123-reg.co.uk 143

```
* OK [CAPABILITY IMAP4rev1 SASL-IR SORT THREAD=REFERENCES MULTIAPPEND UNSELECT
LITERAL+ IDLE CHILDREN NAMESPACE LOGIN-REFERRALS UIDPLUS LIST-EXTENDED I18NLEVE
L=
1 AUTH=PLAIN] ATLAS/WebFusion Mail Server
```

01 LOGIN username@domain.com password

```
01 OK [CAPABILITY IMAP4rev1 SASL-IR SORT THREAD=REFERENCES MULTIAPPEND UNSELECT
```

```
LITERAL+ IDLE CHILDREN NAMESPACE LOGIN-REFERRALS UIDPLUS LIST-EXTENDED I18NLEVE
L
=1 AUTH=PLAIN] Logged in.
```

POP3

1. Verify the readability server can connect to the email server:
    a. telnet <email server> **110**
2. Verify the credentials are correct..see example below (text in bold is entered by user):

```
telnet pop.123-reg.co.uk 110
+OK Hello there.
user your-emailmailboxusername
+OK Password required.
pass youremailpassword
+OK logged in.
```

In both these cases if you cannot connect and login via telnet, the problem is with the setup on the email server or the network.

IMAPS/POP3S

To verify you can open a secure connection to the mail server over IMAP/POP3 from an ssh shell on the readability server type:

```
# openssl s_client -showcerts -connect mail.example.com:<PORT>
```

Check the output and ensure that a valid certificate is shown:

```
Server certificate
subject=/OU=Domain Control Validated/OU=PositiveSSL/CN=mail.example.com
issuer=/C=GB/ST=Greater Manchester/L=Salford/O=COMODO CA Limited/CN=PositiveSSL
 CA 2
```

Make sure you receive a valid IMPA / POP3 welcome message:

```
* OK The Microsoft Exchange IMAP4 service is ready. [RABCADYAUABSADEAMAAwADEAQw
BBADAAMAAxADEALgBFAFUAUgBQAFIARAAxADAALgBQAFIATwBEAC4ATwBVAFQATABPAE8ASwAuAEMAT
wBNAA==]
```

If you cannot connect using openssl to the IMAPS/POP3S port on the email server it means there is a configuration issue on the email server.

2.4 RabbitMQ

VT Readability relies on RabbitMQ as a message broker service. There are two predefined users in RabbitMQ packaged with VT Readability, which are guest and visiblethread.

The RabbitMQ HTML dashboard can be accessed at the VM's local address at port 15672. The login credentials are:

- Username: visiblethread
- Password: visiblethread7

If the visiblethread user is not defined, the following commands can be run from the console to create it:

```
#Creating guest user sudo rabbitmqctl add_user visiblethread
visiblethread7 sudo rabbitmqctl set_user_tags visiblethread
administrator sudo rabbitmqctl set_permissions -p /
visiblethread ".*" ".*" ".*"
```