



# HTML5 Viewer Configuration Guide

*DocuPhase 6.1 (or later)*

*Last Revised: November 7, 2019*

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#### **DISCLAIMER**

**These recommendations are only provided as a general point of reference for system installations, and may need to be adjusted to meet the demands of your specific situation.**

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## Revision History

Item #	Release #	Revision Date	Description	Tracking Notes
005	6.1 and later	11/07/19	<ul style="list-style-type: none"> <li>Cover was updated by changing version number from 6.2 to 6.1 and later</li> <li>Overview section has been updated to include more information regarding email and cache configuration, as well as assumptions (on page 1).</li> </ul>	Kb (based on request for adding email configuration info)
004			<ul style="list-style-type: none"> <li>Added Email configuration instructions (starting on page x)</li> </ul>	EAllen
003		10/25/19	<ul style="list-style-type: none"> <li>Marked Sliding Expiration as “Currently Unavailable” (on page 10).</li> <li>Corrected typo (extra *) in TOC</li> </ul>	KrMartin
002		10/17/19	<ul style="list-style-type: none"> <li>Double-checking of content by QA, and some adjustment in formatting.</li> <li>For clarity, summary diagram replaced detailed text on page 14).</li> <li>Added Disclaimer to title page.</li> </ul>	kb
000		06/05/19	<i>ORIGINAL</i>	Rebranding of existing document with additions from FLopez


## Overview

### Purpose of this Document

The intended audience for this guide is technical professionals (e.g., TPOCS, System Administrators, Technical Support, etc.) who are tasked with configuring and implementing the DocuPhase HTML5 Viewer.

The HTML5 Viewer is the DocuPhase web-enabled viewer. It provides a user interface provides that offers a full range of Document viewing, annotation, and manipulation capabilities: including the ability to email documents from within the Viewer.

This Viewer requires configuration information for the following:

- ✓ Email () – see next page
- ✓ Cache Settings – see page 7



#### **NOTE**

*DocuPhase is the Service Provider when the term “Service Provider” is referenced in any Identity Provider-specific instruction information*

### Assumptions

The following must be true in order to successfully configure and implement the HTML5 Viewer:

- ✓ Personnel assigned to this task is familiar DocuPhase Config files.
- ✓ Server Prerequisites have been installed (refer to DocuPhase Standard Requirements Specification Guide.
- ✓ The DocuPhase platform is installed and successfully tested as http.
- ✓ One of the supported email services (Office 365, On-premise exchange) is used/available.
- ✓ Notepad ++ (run as an administrator) is to be used when editing config files.
- ✓ Exchange Server settings have been completed (see next page)

### Questions or Need Assistance?

If you have specific questions or need assistance with the configuration of HTML5 Viewer, please contact DocuPhase at any of the following:

**Email:** [support@docuphase.com](mailto:support@docuphase.com)

**Phone:** (727) 441-8228

**Website:** <https://www.docuphase.com/contact-us>



#### **BEST PRACTICE**

*When sending an email please use the following format:*

- **In the Subject line:** “Request for information about HTML5 Viewer Configuration”
- **In the Body of the email:**
  - + Give a brief description of the information you are looking to obtain.
  - + Provide the best contact name, phone number, and email address.

## Configuring Email for the HTML5 Viewer

The configuration for Email includes the following:

- A) [Make Changes to the Data Service Web Config File – see next page](#)
- B) [Recycle the Data Service app pool – see page 5](#)
- C) [Test the Configuration – see page 6](#)

**NOTE**

*Email configuration for the left side window (screens used to access documents, such as Work Items, Search Results, etc.) performed on the Server-side.*

## A) Make Changes to the Data Service Web Config File

**IMPORTANT!**  
The email URL may be included at the time of installation (DataService.msi).

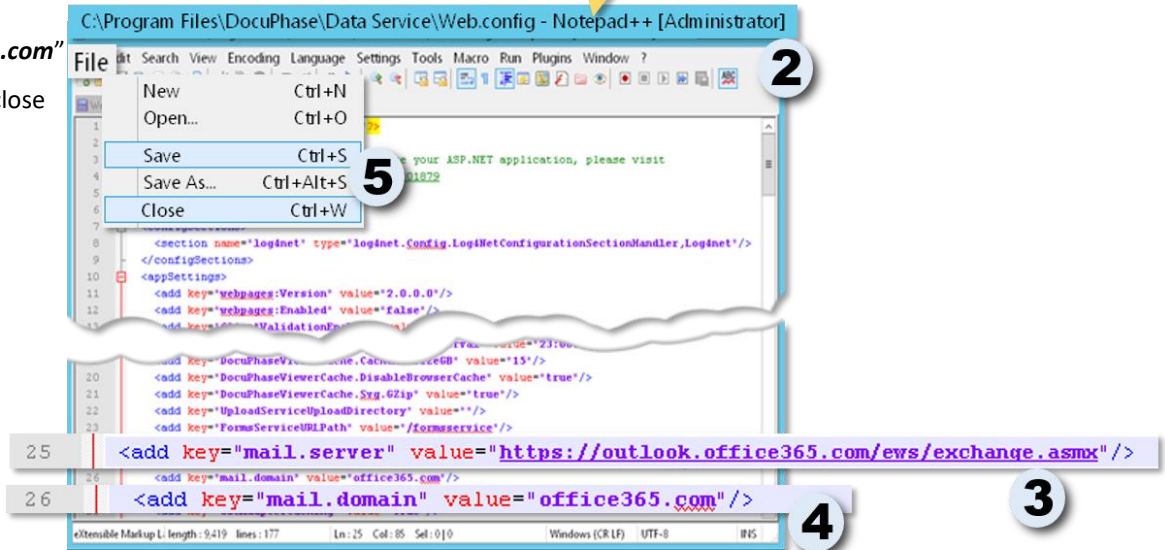
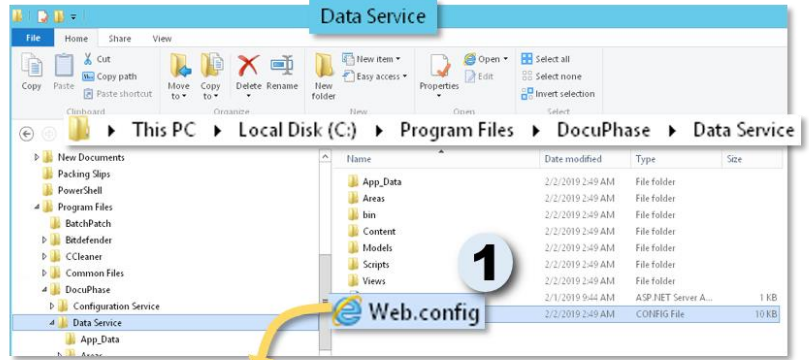
### Hosted (Office 365)

In File Explorer:

- 1) Navigate to DocuPhase Data Service Config File (e.g., C:\Program Files\DocuPhase\Data Service\web.config).

In NotePad++:

- 2) Open the web.config file and make the following changes:
- 3) Locate the **mail.server** entry, and enter the organization's "AvailabilityService URL" (see **IMPORTANT!** note on page 4 for more information).\*
- 4) Locate the **mail.domain** entry, and make sure the value reads as "office365.com"
- 5) Save and close the file.



\*For more information, go to <https://o365info.com/hostname-office-365-mx-records/>

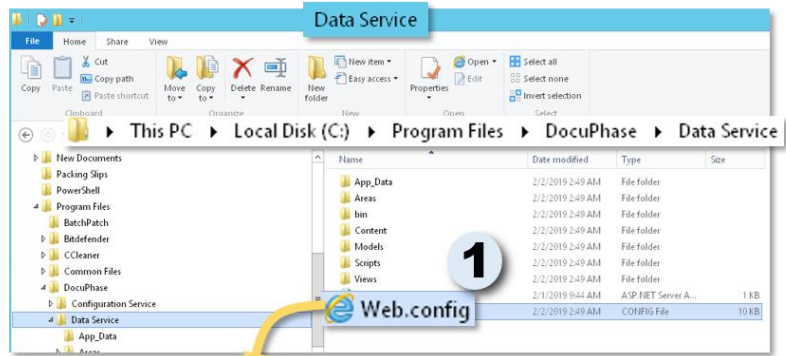
A) Make Changes to the Data Service Web Config File (continued on next page)

A) Make Changes to the Data Service Web Config File (continued)

### On-Prem Exchange

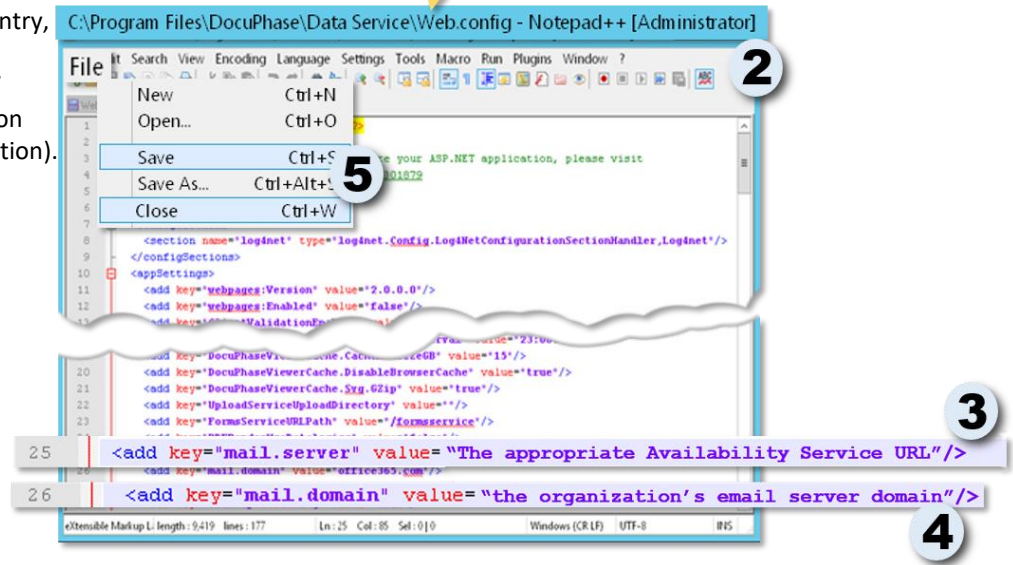
**In File Explorer:**

- 1) Navigate to DocuPhase Data Service Config File (e.g., C:\Program Files\DocuPhase\Data Service\web.config).



**In NotePad++:**

- 2) Open the web.config file and make the following changes:
- 3) Locate the **mail.server** entry, enter the organization’s “AvailabilityService URL” (see **IMPORTANT!** note on page 4 for more information).
- 4) Locate the **mail.domain** entry, and enter the organization’s email server domain.
- 5) Save and close the file.



**EXAMPLE**

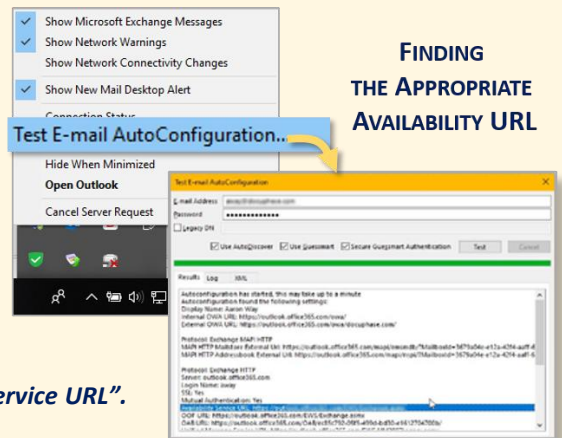
The following shows an example of how the entries might appear:

```
<add key="mail.server" value="https://mailserver.contoso.com/EWS/Exchange.asmx"/>
<add key="mail.domain" value="contoso.com"/>
```

**IMPORTANT!**

You must use a Microsoft Outlook client that connects to the same Exchange server. Confirm this through the following procedure:

- Press **Ctrl** and right click on the Outlook Icon in the system tray to display a list of options.
- Select “Test E-mail Auto Configuration”.
- Enter an email address (and its associated account password) that you know is located on the Exchange server that is being used for the HTML5 Viewer email.
- Click **Test** to display the URL listed as “AvailabilityService URL”.



\*\*For more information, go to <https://www.dnscheck.co/blog/dns-monitoring/2015/10/17/check-mx-records.html>

## B) Recycle the Data Service app pool in IIS

This procedure refreshes the HTML5 Viewer after all the previous changes have been made, with minimal impact to end users.

*In the IIS Manager:*

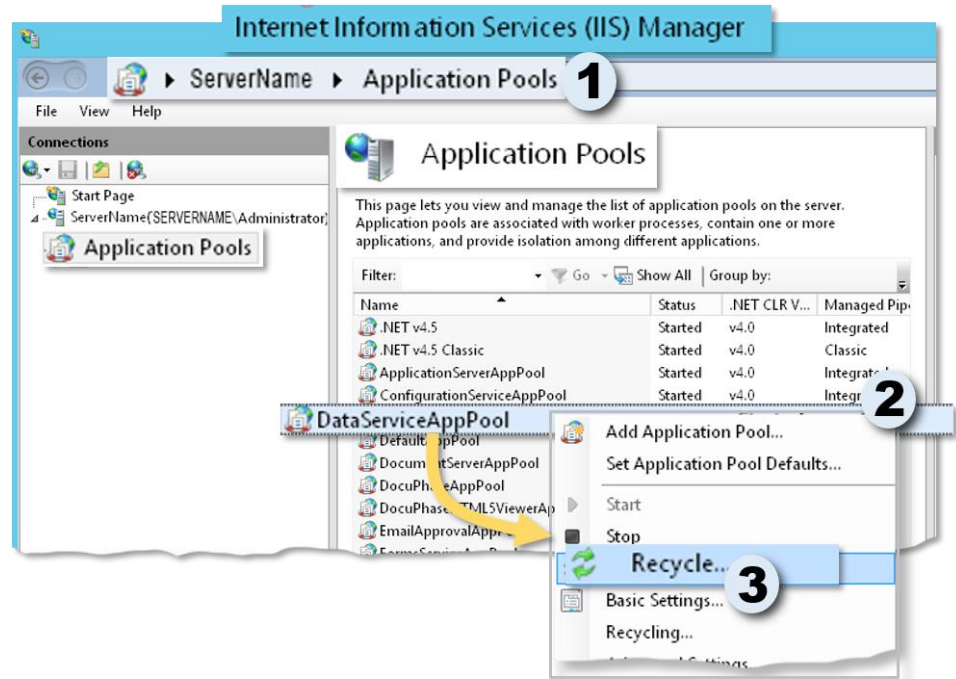
- 1) Navigate to and open **Application Pools** to display the App Pools list of files.

*In the list of files:*

- 2) Find and right-click on the **Data ServiceAppPool** entry to display a list of options.

*From the list of options:*

- 3) Select **Recycle** to refresh the Viewer.





## C) Test the Configuration

- 1) Login in to DocuPhase.

*In DocuPhase:*

- 2) Search for a document, and open a Document.

*In the toolbar at the top of the HTML5 Viewer*

- 3) Click to display the **Email Password** dialog.

**TIP**  
 This should be the email password for the email account set in User Preferences within DocuPhase for the logged-in user.

*In the Password dialog:*

- 4) Have the user type in their email password, then click **OK** to display the **Document Email** window.

*In the Document Email window:*

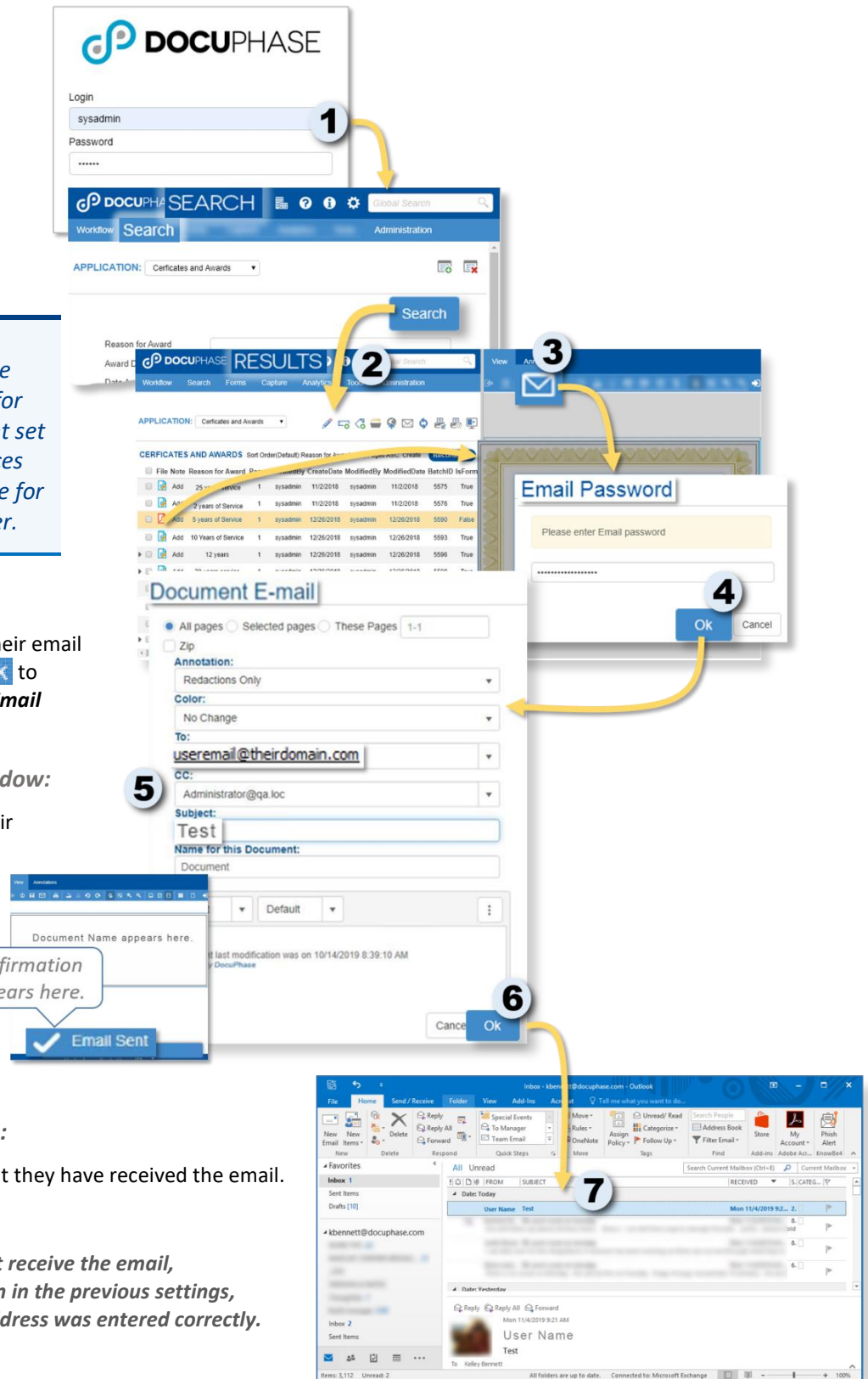
- 5) Have the user enter their address in the "To" field, and then the word "Test" as the subject.

- 6) Click **OK** to send the test email and display a confirmation prompt.

*In the appropriate email system:*

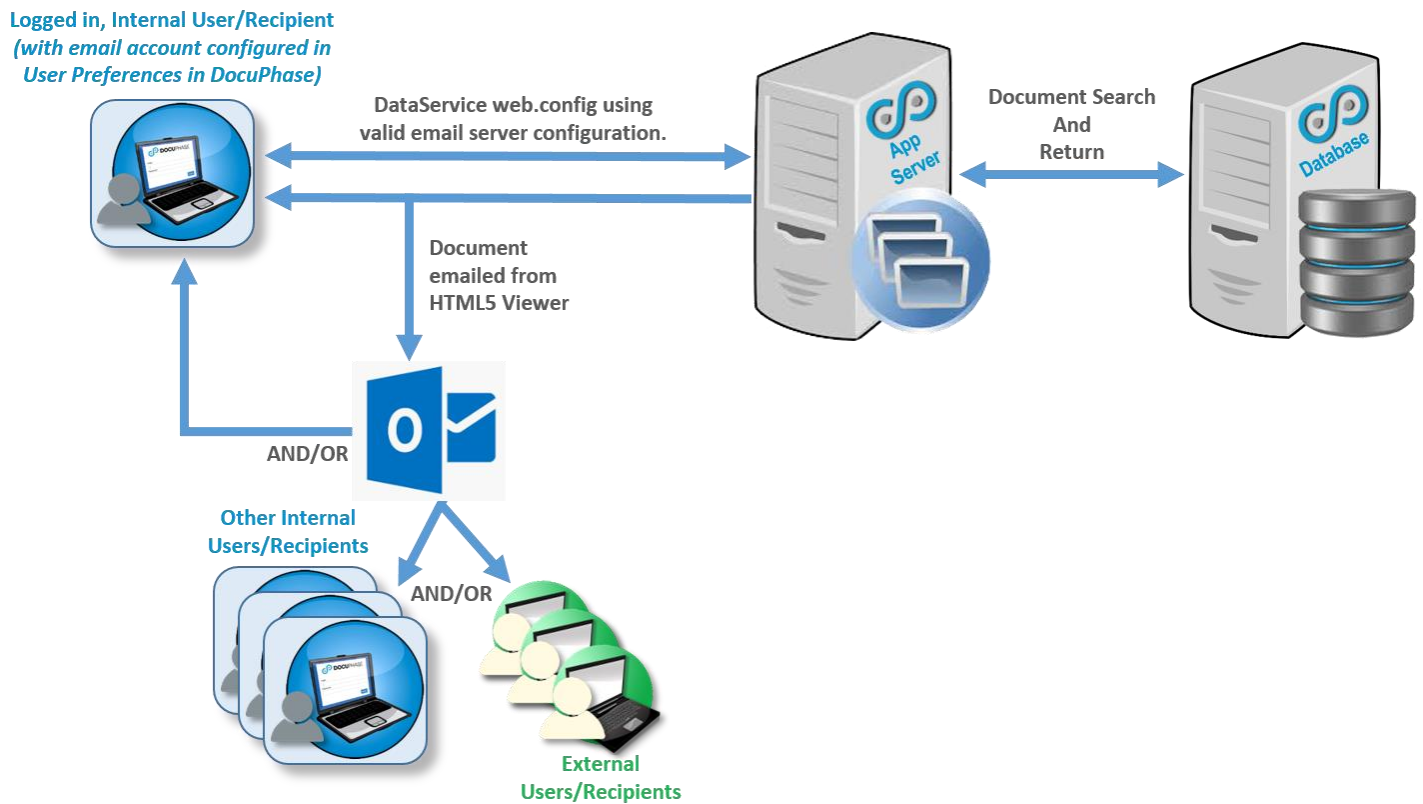
- 7) Have the user verify that they have received the email.

*If the user does not receive the email, review the settings shown in the previous settings, and make sure the email address was entered correctly.*



## Summary Diagrams of Successful Email Configuration

If/when properly configured, the following processes should occur:



## Configuring HTML5 Viewer Cache

The configuration of Cache for the HTML5 Viewer includes the following information:

- A) Making Settings for Document Caching – see below
- B) Configure DataService & DocuPhase Service Viewer Cache Plug-in – see page 12

### A) Making Settings for Document Caching

You can set and adjust the settings in the Viewer Console as described below:



#### **BEST PRACTICE**

**BEFORE** making any adjustments to the settings described here:

Since each installation infrastructure is different, it is highly recommended that you use Viewer Console to review the current status of each cache type



### Viewer Console

Select DataService Server:

Settings




Configuration Setting	Value
DocuPhaseViewerCache.Directory	C:/ProgramData/DocuPhase/DocuPhaseViewerCache
DocuPhaseViewerCache.DisableBrowserCache	true
PDFRenderUseDatalogics	false
DocuPhaseViewerCache.CacheCheckInterval	23:00:00
DocuPhaseViewerCache.AccessTimeout	2:00:00:00
DocuPhaseViewerCache.SlidingExpiration	48:00:00
DocuPhaseViewerCache.CacheMaxSizeGB	15 GB
Max Size Cache Threshold Percentage	90%

Monitor

A) Making Settings for Document Caching (continued on next page)

## A) Making Settings for Document Caching (continued)




**Document Viewer Cache Settings**

Cache Type	Description\Settings
<b>Directory</b>	Generalized storage location of DocuPhase cache  <div style="border: 1px solid black; padding: 5px; background-color: #fff9c4;">  <b>IMPORTANT!</b>  <i>To prevent I/O contention with other systems (such as a DB system or DocuPhase repository) it is imperative that this folder be placed in disk controller separate from other systems. If this is not possible then a separate disk is recommended.</i> </div>
<b>Disable Browser Cache</b>	<ul style="list-style-type: none"> <li>• <b>True*</b> – adds a protection level that <b>helps prevent content security breaches</b>. This is achieved by forcing the browser (rather than the cache) to render/display documents served by the DataService.</li> <li>• <b>False*</b> – allows the local browser to store rendered documents in the browser’s local cache for faster display of (but <b>less security</b> for) documents.</li> </ul> <div style="border: 1px solid black; padding: 5px; background-color: #ffe0b2;">  <b>WARNING!</b>  <i>While the non-default setting of False allows faster display of documents, it does not provide the security that the True (default) setting does. Please use this setting with great care in order to maintain the integrity and security of the content of the documents.</i> </div> <div style="border: 1px solid black; padding: 5px; background-color: #e0f2f1;">  <b>NOTE</b>  <i>Each rendered document page is a raster image currently in jpeg format.</i> </div>
<b>PDF Render Use Datalogics</b>	<ul style="list-style-type: none"> <li>• <b>True</b> – allows for the <b>highest quality available</b> for rendering of PDF. This is achieved as the system is required to use the Datalogics toolkit (i.e., a wrapper around the Adobe PDF API). The Datalogics toolkit has better fidelity for rendering the different PDF objects that may be contained in the file.</li> <li>• <b>False</b> – allows for <b>faster performance</b> by requiring the system to use the Leadtools<sup>1</sup> image library to render all PDF documents.  Leadtools rendering is a faster (but lower in quality) than the Datalogics one since the Datalogics requires a two-step rendering process: one from PDF to Tiff and another one from Tiff to the final raster image format used by the Dataservice (i.e., currently .jpg).</li> </ul>





\*Default Setting

<sup>1</sup> [www.leadtools.com](http://www.leadtools.com)

Document Viewer Cache Settings (continued on next page)

Cache Type	Description\Settings
<i>Document Viewer Cache Settings (continued)</i>	
<b>Cache Check Interval</b>	<p>This setting controls how often (i.e., in hours, minutes, and seconds – HH/MM/SS) the system checks rendered document pages for their eligibility for removal from Viewer cache (based on the Sliding Expiration setting, as described below).</p> <div data-bbox="505 405 1511 659" style="border: 1px solid #008080; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b>  <i>Documents that are determined to be eligible for removal are identified, but not necessarily removed from cache at the designated “check interval” time. However, documents that are recognized as being eligible for removal are removed when the Max Size Cache Threshold Percentage is reached (as described below).</i></p> </div>
<b>Access Timeout</b>	<p>This setting tells the system how long to wait between file accesses errors before an exception is thrown. A shorter period disables file access “re-tries” in order to force the DataService to trigger an error sooner rather than later.</p> <div data-bbox="594 821 1370 968" style="border: 1px solid #008080; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b>  <i>This setting is not related to the Cache Maintenance Process.</i></p> </div>
<b>Sliding Expiration (Currently Unavailable)</b>	<p>This setting provides the criterion for document removal eligibility with regard to the for e Cache Check interval (as described above). It is defined by a set amount of time within which a rendered document page must be accessed to not be considered as eligible for removal from the cache.</p> <p>In other words, rendered document pages that are accessed more often than the expiration set here are not eligible for removal from cache as they are still being viewed with some frequency.</p> <div data-bbox="505 1245 1511 1423" style="border: 1px solid #008080; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b>  <i>Documents that are recognized as being eligible for removal are removed when the Max Size Cache Threshold Percentage is reached (as described below).</i></p> </div>

*Document Viewer Cache Settings (continued on next page)*

Cache Type	Description\Settings
<i>Document Viewer Cache Settings (continued)</i>	
<p><b>CacheMaxSizeGB</b></p>	<p>This setting works in conjunction with the Max Size cache Threshold Percentage (as described below), and limits the maximum size (in Gigabytes) that the cache is allowed reach before the system removes documents (i.e., document rendered pages identified as eligible for removal – see Cache Check Interval and Sliding Expiration settings, as described above).</p> <div data-bbox="511 436 1513 630" style="border: 1px solid black; background-color: #fff9c4; padding: 5px;"> <p> <b>IMPORTANT!</b>  <i>A small size may cause excessive evaluations of the cache for compliance: affecting the overall server performance and may cause frequent re-rendering (and therefore re-caching) of document pages.</i></p> </div> <div data-bbox="511 630 1513 814" style="border: 1px solid black; background-color: #e0f2f1; padding: 5px;"> <p> <b>NOTE</b>  <i>This value is communicated to the DocuPhase Service Viewer Cache plug-in that performs the actual Cache maintenance (i.e., evaluation and page removals) outside of the context of DataService</i></p> </div>
<p><b>Max Size Cache Threshold Percentage</b></p>	<p>This setting works in conjunction with the CacheMaxSizeGB (as described above) to provide criteria that tells the system when to actually remove documents from cache (i.e., document rendered pages identified as eligible for removal – see Cache Check Interval and Sliding Expiration settings, as described above).</p> <p>In other words, when the system reaches the percentage (set here) of the designated CacheMaxSize (as described above), the <u>DocuPhase Service Viewer Cache plug-in</u> goes through the process of clearing eligible rendered Document pages from the cache in FIFO (first in, first out) order.</p> <div data-bbox="511 1144 1513 1375" style="border: 1px solid black; background-color: #e0e0e0; padding: 5px;"> <p> <b>EXAMPLE</b>  <i>Let's say your CacheMaxSizeGB is set to 100GB, then the Max Size Cache Threshold Percentage is set to 90%. This means that when the cache size reaches 90GB, the system begins removing eligible Documents from cache starting with files that have been in cache the longest.</i></p> </div> <div data-bbox="511 1375 1513 1533" style="border: 1px solid black; background-color: #e0f2f1; padding: 5px;"> <p> <b>NOTE</b>  <i>This setting is NOT controlled through any setting in the web.config file; therefore, the administrator has no way no change this behavior.</i></p> </div>

## B) Configure DataService & DocuPhase Service Viewer Cache Plug-in

Use the files as described below to set up and/or make changes to the DataService and DocuPhase Service Viewer Cache Plug-in files:



### **WARNINGS!**

- Use caution when changing the service interval to less than 2 hours. Changing the settings to run at a shorter time interval has the potential to cause contention between the HTML 5 Viewer and the DocuPhase Service Viewer Cache plug-in, and warning messages are logged.
- Be sure that the data service is configured to use an accessible cache directory that is accessible (i.e., security or network accessible) to the DocuPhase Service Viewer Cache plugin; otherwise, the HTML 5 Viewer Cache service is unable to clear cache.



### **IMPORTANT!**

When you see the term “Service Provider” referred to in any Identity Provider-specific instruction information, remember that DocuPhase is the Service Provider

This File...	Can generally be found in this location*...	And does the following:
<b>DataService Configuration File</b>	C:\Program Files\DocuPhase\Data Service\Web.config	<p>This file contains a superset of settings (related to the cache settings described in the previous section starting on page 9) that take precedence over those in the ViewerCacheServiceConfig.xml</p> <p>The settings contained in this file include the following:</p> <ul style="list-style-type: none"> <li>• DocuPhaseViewerCache.Directory (see page 9)</li> <li>• DocuPhaseViewerCache.AccessTimeout (see page 10)</li> <li>• DocuPhaseViewerCache.SlidingExpiration (see page 10)</li> <li>• DocuPhaseViewerCache.CacheCheckInterval (see page 10)</li> <li>• DocuPhaseViewerCache.CacheMaxSizeGB (see page 11)</li> </ul>
<b>DocuPhase Service Viewer Plug-in Configuration File</b>	C:\ProgramData\DocuPhase\DocuPhase Service\ViewerCacheServiceConfig.xml	<p>This configuration file contains default values for the DocuPhase Service Viewer Cache plug-in that are used when (in the unlikely, but possible event) the DataService cannot be accessed (e.g., service is down), but the DocuPhase Service Viewer Cache plug-in is still running.</p> <p>Configuration values are as follows:</p> <ul style="list-style-type: none"> <li>• DocuPhaseViewerCache.Directory– used to temporarily store cached data in the event that Data Service is inaccessible (see <i>Warning</i> above)</li> <li>• DocuPhaseViewerCache.AccessTimeout (see page 10)– Determines how long to wait between file accesses errors before an exception is thrown</li> <li>• DocuPhaseViewerCache.CacheMaxSizeGB (see page 11)– Maximum size (in Gigabytes) the cache is allowed to grow to on the server</li> <li>• DocuPhaseViewerCache.SecurityUri – URI to the Security service</li> <li>• DocuPhaseViewerCache.SecurityUsername – User Name for security service authentication</li> <li>• DocuPhaseViewerCache.SecurityPassword – Password for security service authentication</li> </ul>

*B) Configure DataService & DocuPhase Service Viewer Cache Plug-in (continued on next page)*

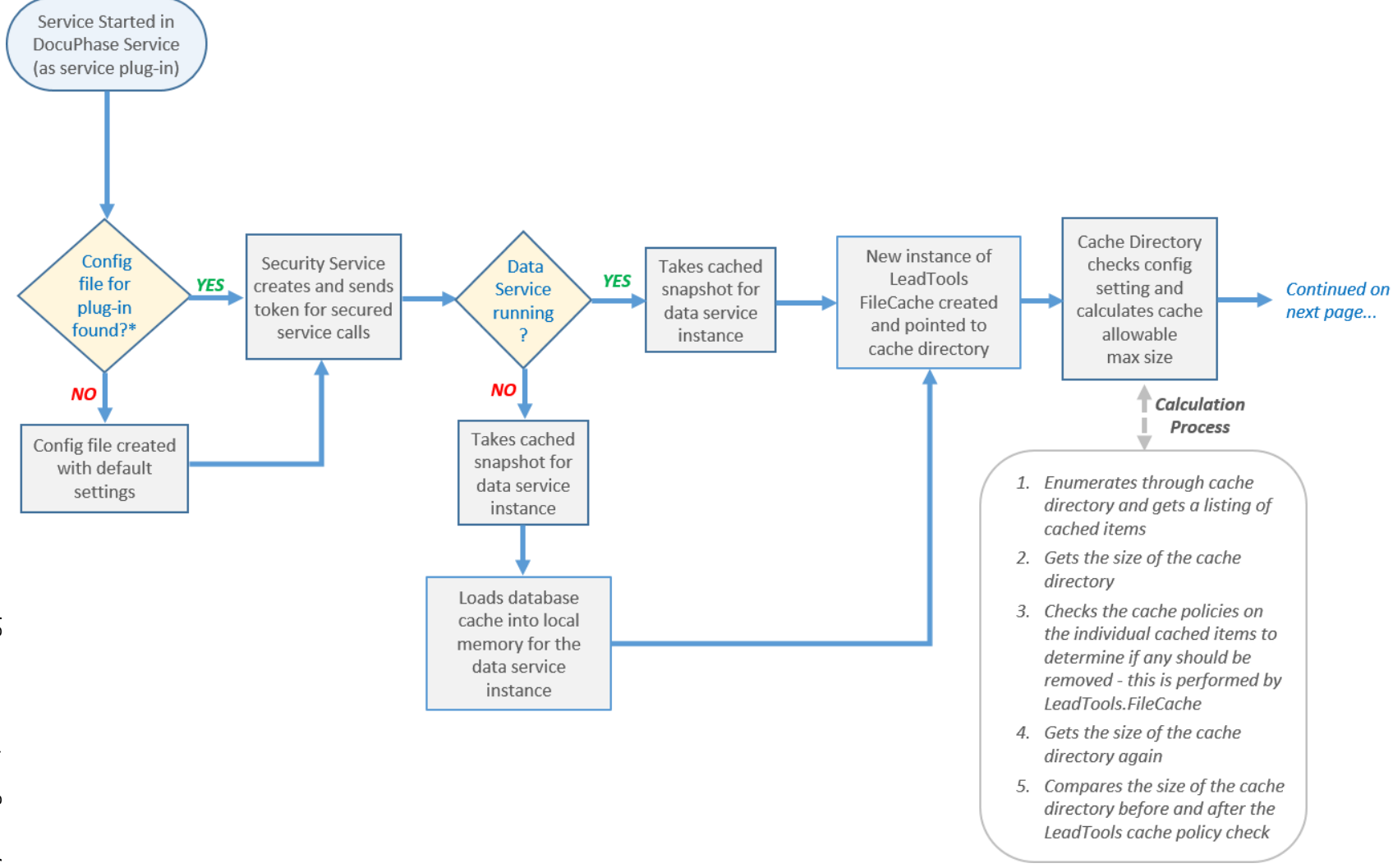
This File...	Can generally be found in this location*...	And does the following:
<i>B) Configure DataService &amp; DocuPhase Service Viewer Cache Plug-in (continued)</i>		
<b>web.config file</b>	DataService installation folder	<p>This file can be used to make adjustments that affect both the DataService instance and the DocuPhase Service Viewer Cache plug-in</p> <p>To perform changes to the settings mentioned above and exposed by the Viewer console the administrator should adjust the following entries:</p> <pre> &lt;appSettings&gt;     ...     ...     &lt;add key="DocuPhaseViewerCache.AccessTimeout" value="" /&gt;     &lt;add key="DocuPhaseViewerCache.SlidingExpiration" value="48:00:00" /&gt;     &lt;add key="DocuPhaseViewerCache.CacheCheckInterval" value="23:00:00" /&gt;     &lt;add key="DocuPhaseViewerCache.CacheMaxSizeGB" value="" /&gt;     &lt;add key="DocuPhaseViewerCache.DisableBrowserCache" value="true" /&gt;     ...     &lt;add key="PDFRenderUseDatalogics" value="false" /&gt;     ... &lt;/appSettings&gt; </pre>
<b>ViewerCacheServiceConfig.xml</b>	DocuPhase Service installation folder	Allows for the adjustments to the defaults values used by the DocuPhase Service Viewer Cache plug-in only.

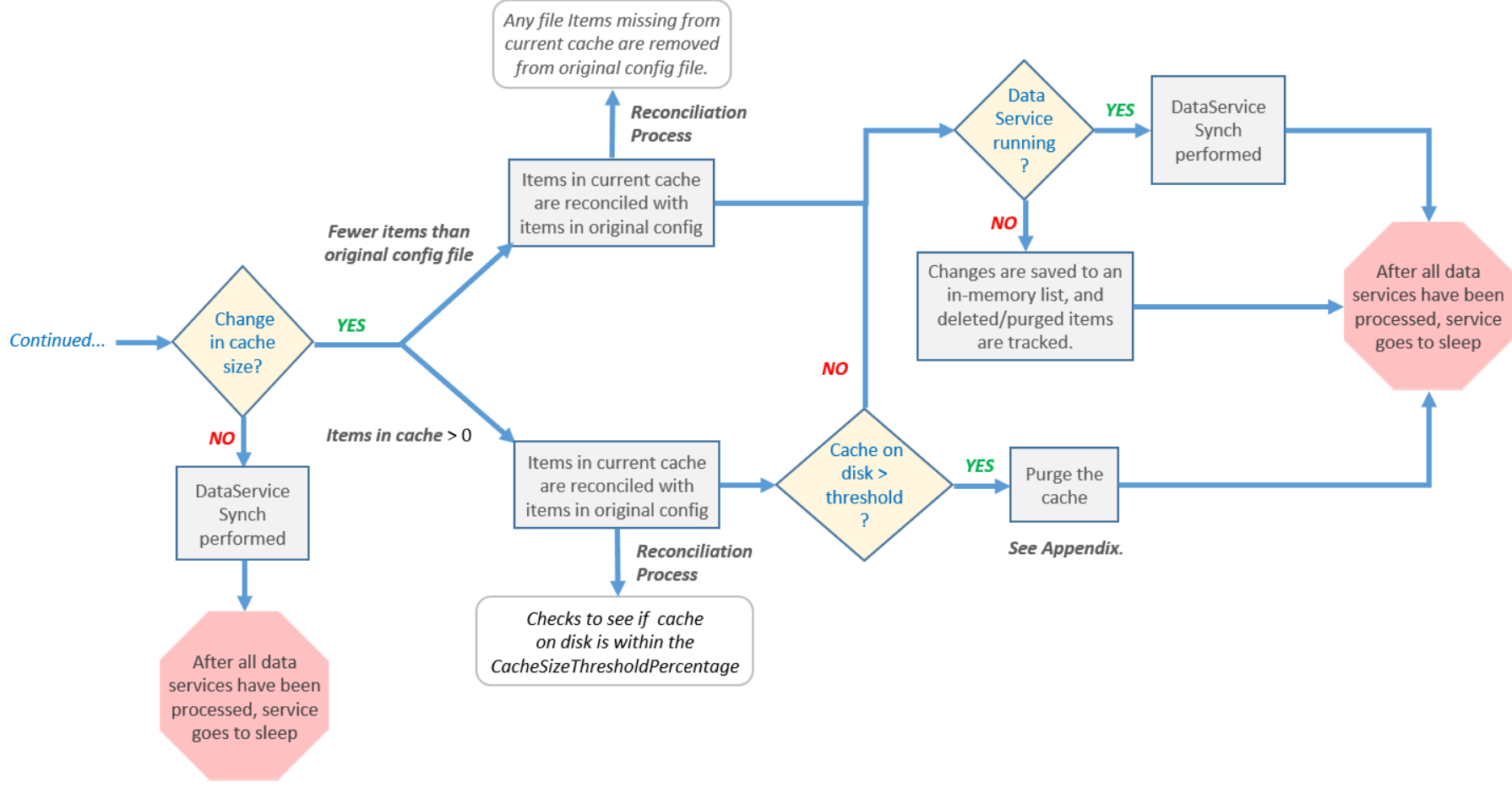
*\*Different Windows O/S versions may store the file in a different location.*



## Summary Diagrams of Successful Cache Configuration

If/when properly configured, the following processes should occur:





## Appendix – Reconcile/Purge Cache

As described in the diagram on page 14, if the cache on disk is larger than the threshold, perform the following procedure. This purges the task to reconcile the resulting cache, in the original config file, with the resulting cache from LeadTools:

### *In the disk cache directory*

- 1) Reorder items in the subdirectory by the creation time in ascending order (oldest first).
- 2) Delete items one at a time from the cache until the cache threshold is met.