



HCL Digital Experience

# HDX-ADM-200

## Monitoring and Troubleshooting Lab

HCLSoftware U

Creating a new generation of experts

Edition November 2024

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## Author(s)

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**Company:**  
**HCLSoftware**

### **Bio**

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## Introduction

In this lab, you will learn how to monitor and troubleshoot your HCL Digital Experience deployment.

In this DX administrator lab, you play the role of Harry, an administrator for the fictitious Woodburn Studio company.



**Harry Pappus, Administrator, based in Chicago (USA)**

As a DX Administrator, you will learn how to access and analyze log files, enable tracing, analyze details, use support and prepare to open a support case.



## Prerequisites

1. Completion of [HDX-INTRO](#), [HDX-BU-100](#) and [HDX-ADM-100](#) courses, as well as the previous lessons under [HDX-ADM-200](#) course, including the labs (you need the DXClient installed and up).
2. Have a running DX instance on CF221 or newer. The lab is using the DX Solution Modules in HCL SoFy (<https://hclsofy.com/catalog/dx-solution-modules>).
3. Access to download the Lab Resources. In the same place where you have found this lab, you will find corresponding resources which you may download and unzip in your Desktop. This helps you to run the lab more easily, and you may later replace it by your own ones.

You will be using the following user IDs and passwords:

Purpose	User	Password
SoFy Login	Your official email id	Your password
SoFy Solution Console Login	sol-admin	Get it from SoFy
DX Login Admin (Harry Pappus)	hpappus	HCL-Dem0
DX Solution Console Login Administrator	wpsadmin	wpsadmin

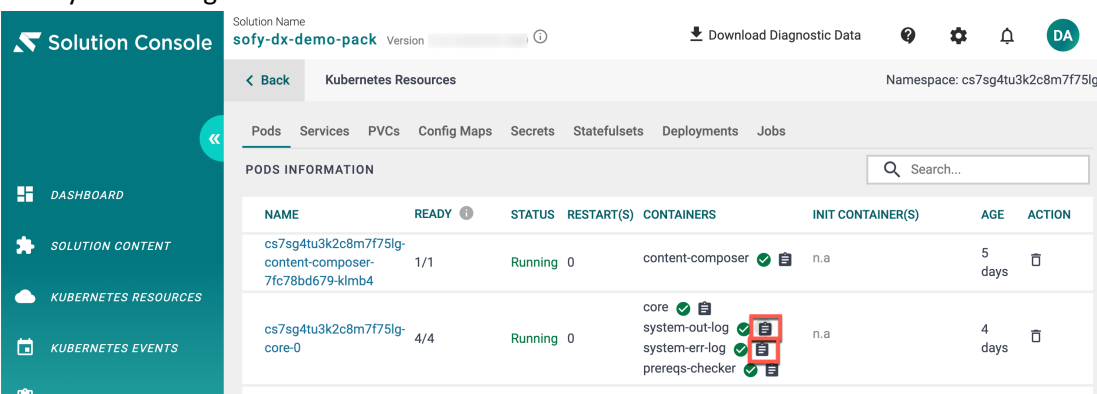
## Lab Overview

In this lab, you will learn how to monitor and troubleshoot issues with your HCL Digital Experience deployment.

In this lab, there are three parts. These are shortly introduced now.

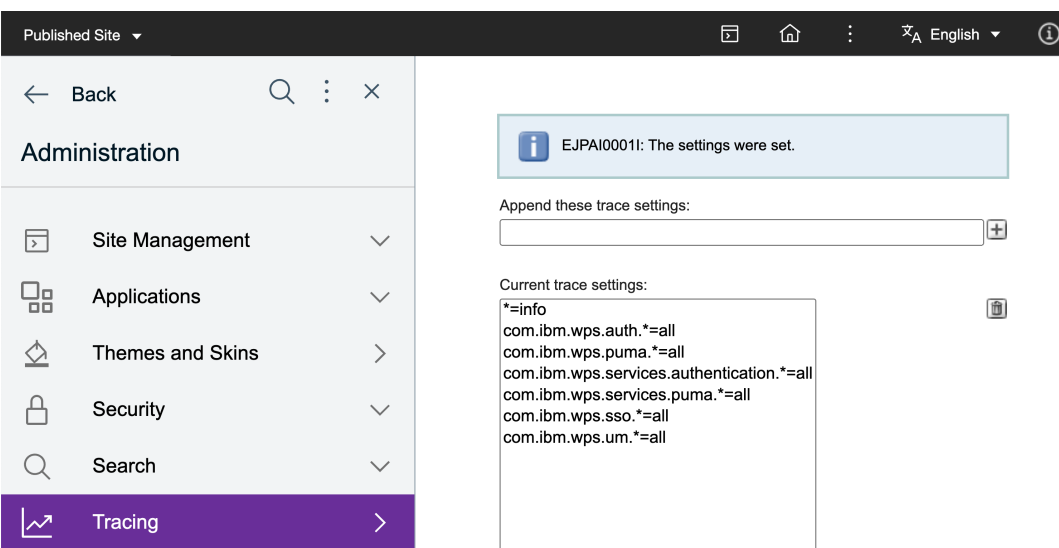
## Part 1: Access and Analyze Log Files

You will first use the HCL SoFy Solution Console to access the log files and look at the SystemOut.log and SystemErr.log files.



## Part 2: Enable, Analyze Details and Use Help Center

Then, you will enable the tracing on access control, analyze the results in the trace.log and use the Help Center to find any details.



### Part 3: Prepare to Open a Case with Support

And then you learn how to prepare yourself to open a case with HCL Support.

HCLSoftware

Customer Support

Search

Chat

Support

New cases

View cases

Resources

Community

About Support

Home > Customer Service > Support > Create Product Case

Search

\*Subject

Clear product case title

\*Description

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Paragraph

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**Business Impact**

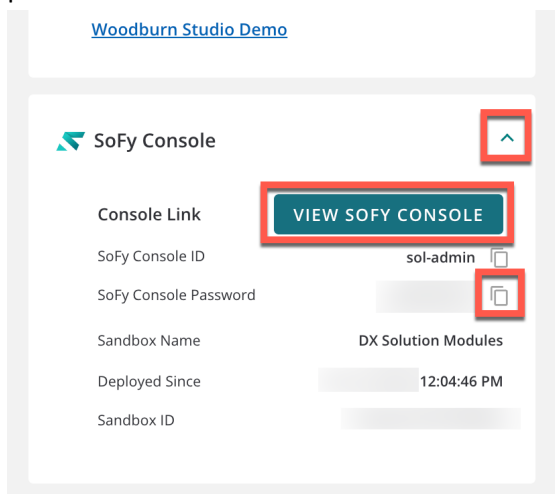
- What type of environment is this? (Production, Test, Development, etc.) If Production, is the system live?
- Is the issue occurring in more than one application?

Submit

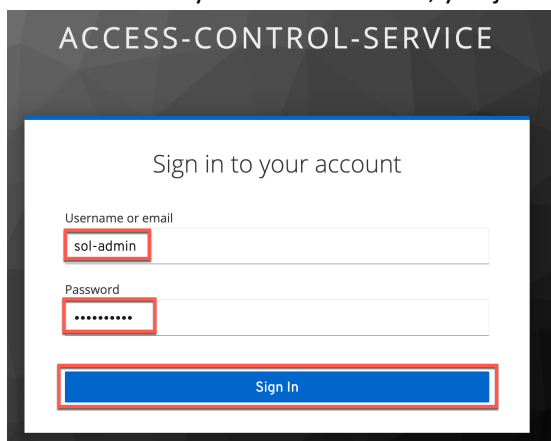
## Part 1: Access and Analyze Log File

You will first use the HCL SoFy Solution Console to access the log files and look at the SystemOut.log and SystemErr.log files.

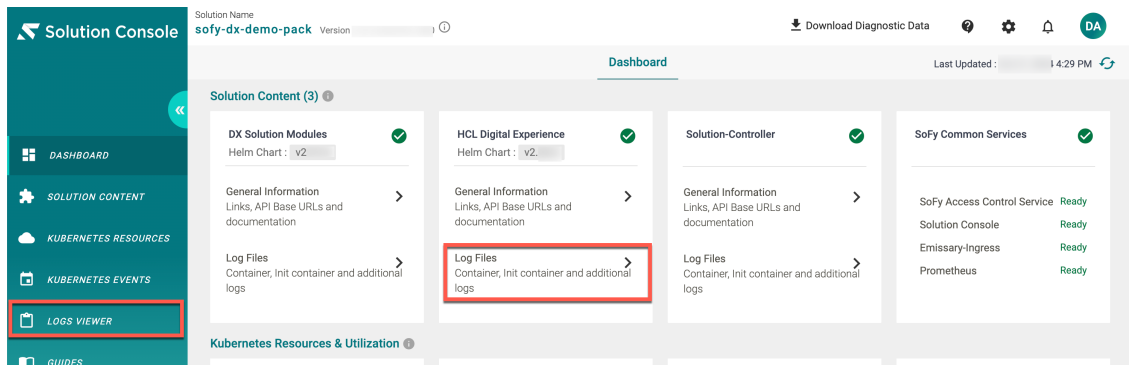
1. You have learned that there are many ways to access the log files. In HCL SoFy this is limited though and the log files are only accessible through the SoFy Console for your DX Solution Modules deployment. When you access it, you see the access details to the SoFy Console. Use these credentials to login into your solution console. You may use the copy to clipboard to simplify filling this out. The sol-admin may be easy to remember. Copy the (here hidden) password and click **VIEW SOFY CONSOLE**.



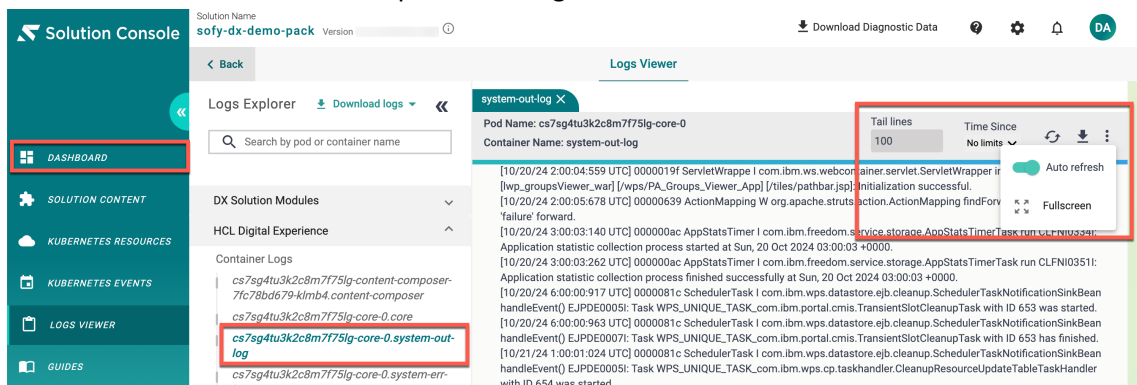
2. Enter as shown below and click **Sign In**.  
 Username: <SoFy Console ID:> **sol-admin**  
 Password: <SoFy Console Password, you just copied>



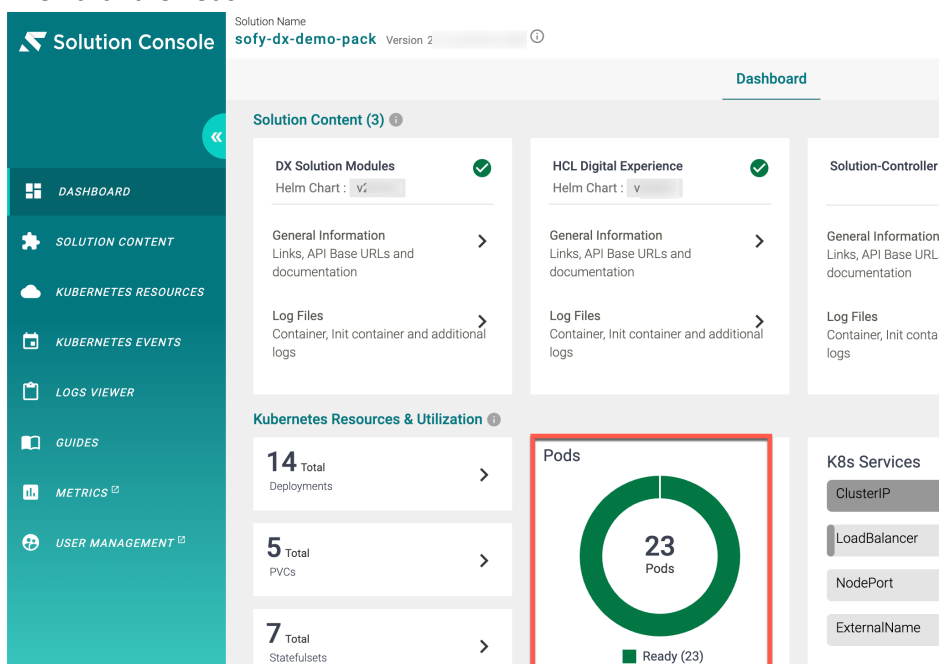
3. You now see all the details of the solution on the Kubernetes resources, pods, services, etc. There are several ways to access the log files. Both Log Files under HCL Digital Experience and LOGS VIEWER bring you to the Logs Viewer. Click any of them.



4. You see the full list of container logs. Have a look at the SystemOut.log. Click on the one that ends with ...core-0.system-out-log and check out the details. Notice and feel free to try out all options to indicate how many lines to show, from when, to refresh, download and even the auto refresh and fullscreen options. Then go back to the dashboard. Click **DASHBOARD**.



5. Then click the **Pods**.



6. This also gives you easily access to all log files for each pod. E.g. the SystemOut.log and SystemErr.log for the DX Core pod. Click the icon for **system-out-log**.

Solution Console

Solution Name: sofy-dx-demo-pack Version: [icon]

Download Diagnostic Data [icon] [icon] [icon] [DA]

Back Kubernetes Resources Namespace: cs7sg4tu3k2c8m7f75lg

Pods Services PVCs Config Maps Secrets Statefulsets Deployments Jobs

PODS INFORMATION Search...

NAME	READY	STATUS	RESTART(S)	CONTAINERS	INIT CONTAINER(S)	AGE	ACTION
cs7sg4tu3k2c8m7f75lg-content-composer-7fc78bd679-klmb4	1/1	Running	0	content-composer	n.a	5 days	[icon]
cs7sg4tu3k2c8m7f75lg-core-0	4/4	Running	0	core system-out-log system-err-log prereqs-checker	n.a	4 days	[icon]

7. This gives you access to the same log information and options to show. Close it.

Logs

Pod Name: cs7sg4tu3k2c8m7f75lg-core-0

Container Name: system-out-log

Tail lines: 100 Time Since: No limits [icon] [icon] [icon]

[10/20/24 2:00:03:083 UTC] 0000019f wclstruts | CLYAC006f: setupSkinManager:skinLocation = WpWclBaseSkinCSS.xml

[10/20/24 2:00:03:447 UTC] 00000633 ThemeProperti W com.ibm.wps.portlet.themeproperties.ThemePropertiesPortlet getThemeOid EJPNT0001W: No theme Oid was specified for the Theme Properties dialog.

[10/20/24 2:00:03:601 UTC] 0000019f ServletWrapper I com.ibm.ws.webcontainer.servlet.ServletWrapper init CWSRV0242I: [lwp\_groupsViewer\_war] [/wps/PA\_Groups\_Viewer\_App] [/layouts/tools.jsp]: Initialization successful.

Auto refresh Fullscreen

8. And to easily download all the files, you may use the Diagnostic Data. Click Download Diagnostic Data, notice with Advanced option you can select specific log files and click **DOWNLOAD DIAGNOSTIC DATA**.

Download Diagnostic Data [icon] [icon] [icon] [DA]

Deployments Jobs

Containers

content-composer [icon]

core [icon]  
system-out-log [icon]  
system-err-log [icon]  
prereqs-checker [icon]

digital-asset-management [icon]  
prereqs-checker [icon]  
haproxy [icon]

Diagnostic Data [icon]

Advanced Select All Unselect All

☒ Kubernetes Events  
☒ Solution Metadata  
☒ Metrics  
☒ Previously terminated logs  
☒ Non-previewable logs  
☒ Logs: Time Since: No limits [icon]  
☒ DX Solution Modules

File Name

diagnostic data-sofy- 44/56

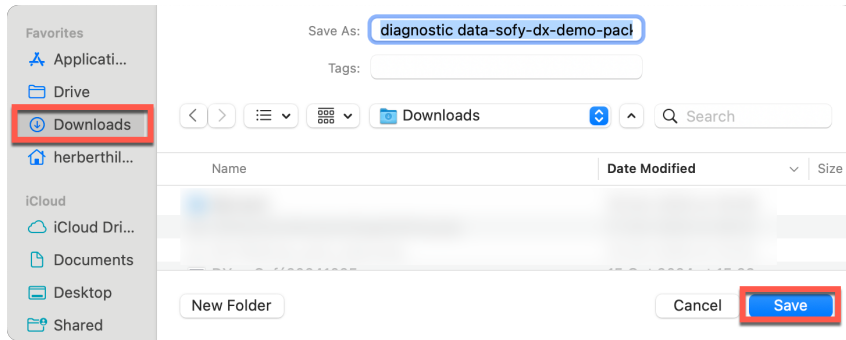
Max 56 characters

File Size File Format [icon]  
NA Zip file(.zip)

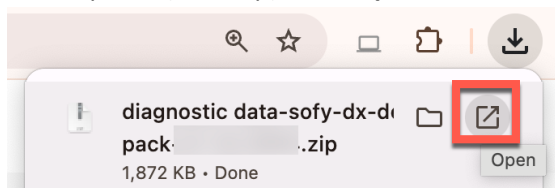
CHECK SIZE

DOWNLOAD DIAGNOSTIC DATA

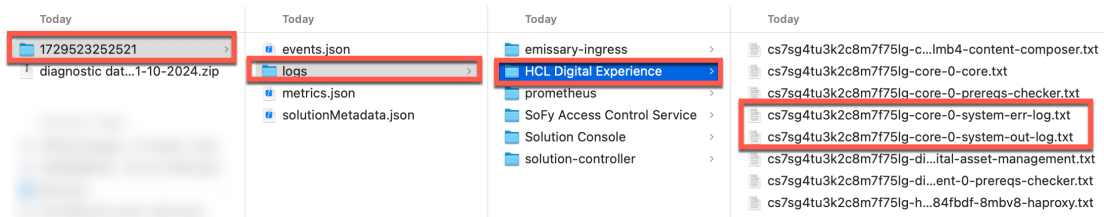
9. Select a folder where you may easily find it, e.g. Downloads, and click **Save**.



10. Then open it (to unzip). Click **Open** icon.



11. And notice all resources that are part of this download, including the SystemOut.log and SystemErr.log.

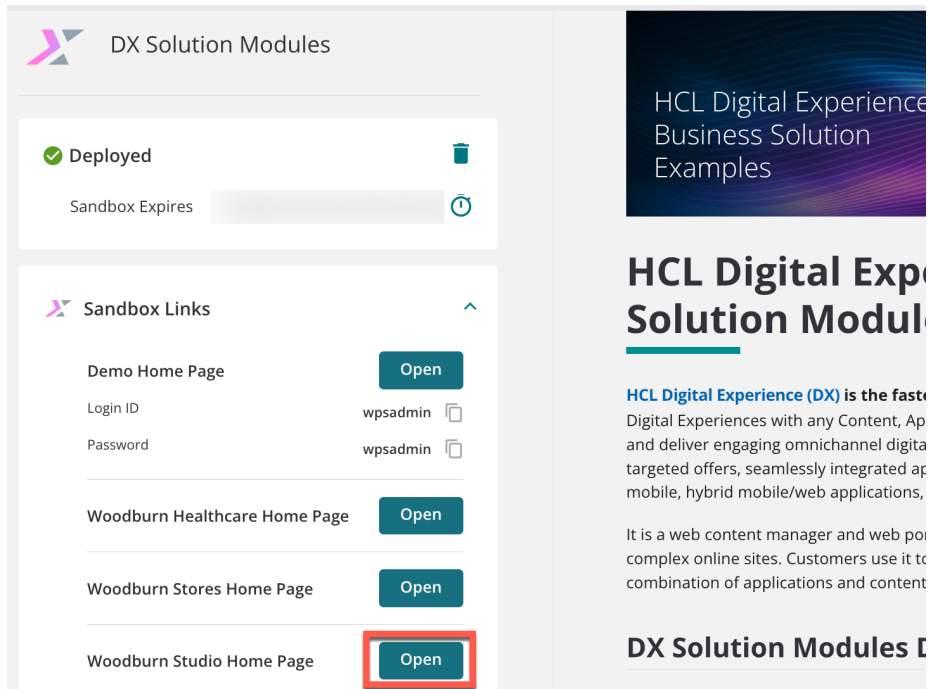



You have successfully learned how to access the different log files for DX using HCL SoFy.

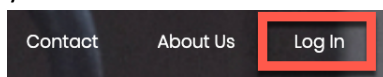
## Part 2: Enable Tracing, Analyze Details and Use Help Center

In this part, you will enable the tracing on access control, analyze the results in the trace.log and use the Help Center to find any details.

1. First log in to your DX server. On the server where the DX Solution Modules has been installed, next to **Woodburn Studio Home Page**, click **Open**.



2. Now login as an administrator, Harry. Click on **Log In**. You may use **CRTL +** and **CRTL -** to zoom in and out. You may need to zoom out to see the navigation on the top. Otherwise, you'll find it under  on the top right.

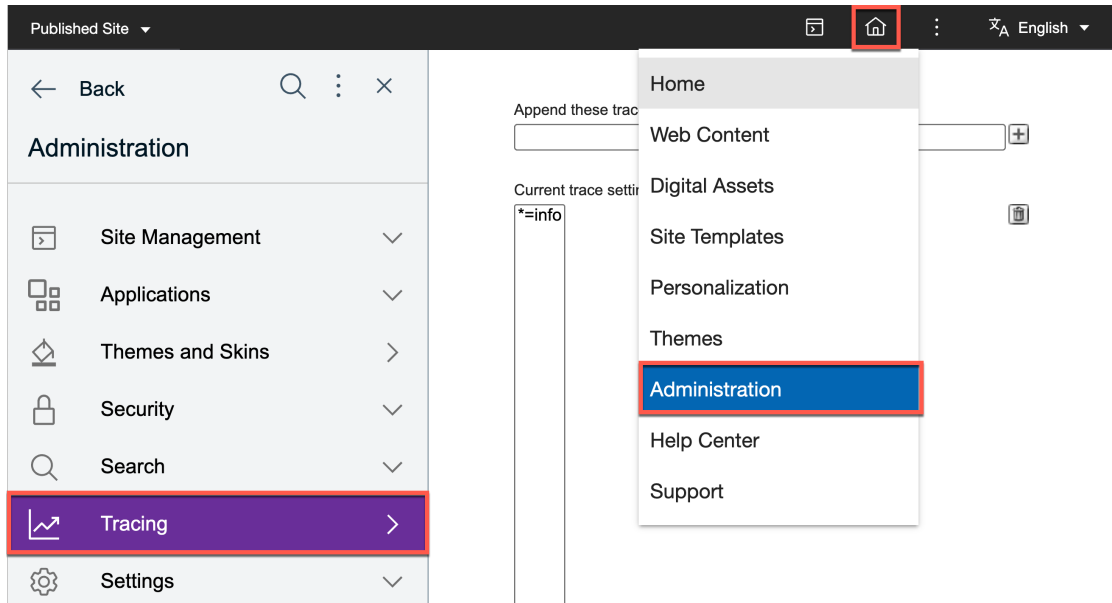


3. Use the credentials of Harry (User ID: **hpappus**, Password: **HCL-Dem0** – if you do not have these, you may use the default administrator account with User ID: **wpsadmin**, Password: **wpsadmin**).





4. Then, open the applications menu, select **Administration – Tracing**.



5. In the Help Center, you see what traces to enable tracing for authentication:  
[https://opensource.hcltechsw.com/digital-experience/latest/deployment/manage/troubleshooting/logging\\_and\\_tracing/run\\_logs/#authentication](https://opensource.hcltechsw.com/digital-experience/latest/deployment/manage/troubleshooting/logging_and_tracing/run_logs/#authentication). You need to add the following to the Append these trace settings and click + to add.

com.ibm.wps.services.puma.\*=all:  
 com.ibm.wps.puma.\*=all:  
 com.ibm.wps.auth.\*=all:  
 com.ibm.wps.sso.\*=all:  
 com.ibm.wps.um.\*=all:  
 com.ibm.wps.services.authentication.\*=all

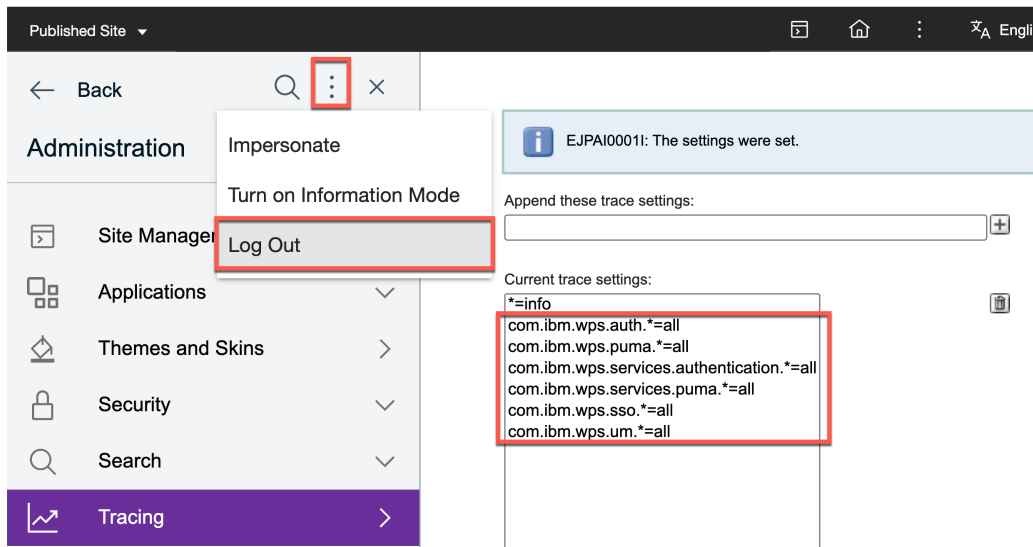
Append these trace settings:

com.ibm.wps.um.\*=all: com.ibm.wps.services.authentication.\*=all

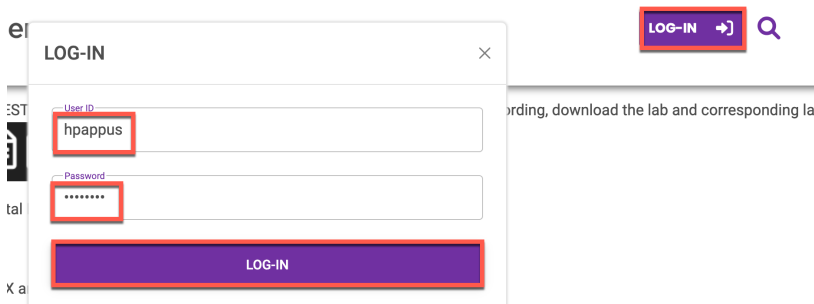
Current trace settings:

\*=info

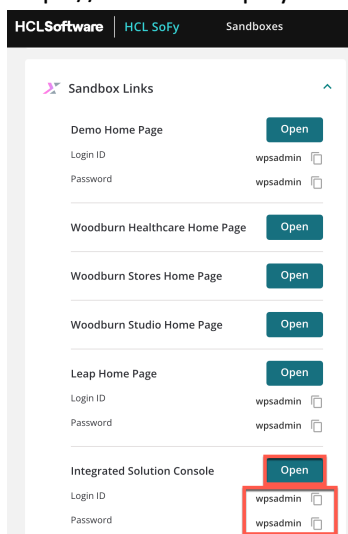
6. You should see that the current trace settings are set. Now log out to see it working. Open the more menu and click **Log Out**.



7. Then log in again with Harry. Click **LOG-IN**, enter User ID **hpappus**, Password **HCL-Dem0** and click **LOG-IN**.



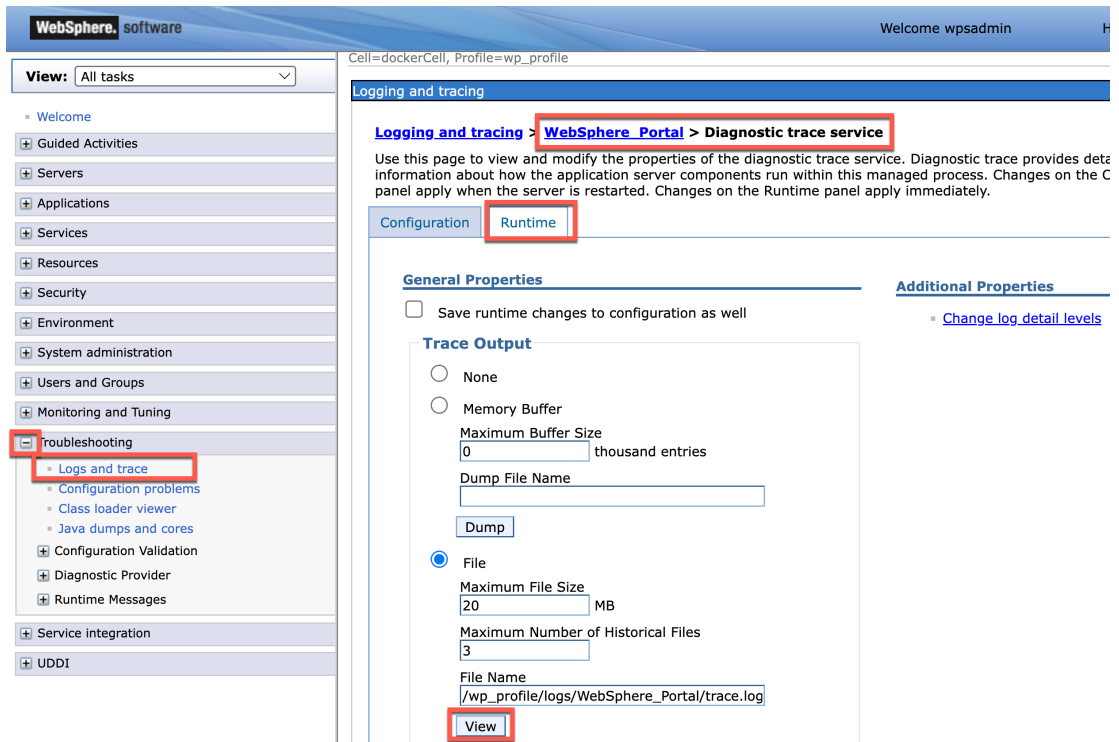
8. And then have a look at the trace.log. On HCL SoFi, this is exposed only using the Integrated Solution Console. From your sandbox, you may easily access this and find the right login ID and password to use. Click **Open**. It opens a URL like <https://dx.sbx0000.play.hclsofy.com/ibm/console>



9. And log in with the user ID and password. This may log out your current user, if you use the same browser. You could use a private or incognito window to avoid this.



10. Then view the trace.log. Open **Troubleshooting**, click **Logs and trace**, **WebSphere\_Portal**, **Diagnostic Trace**, **Runtime** and **View**.



11. And see the full trace of your authentication. Notice you can filter the number of lines to show. You can also easily select and copy the content.

**Logging and tracing**

**Logging and tracing > WebSphere\_Portal > Log File**

Display the contents of the given file.

Total: 60103, Filtered total: 250

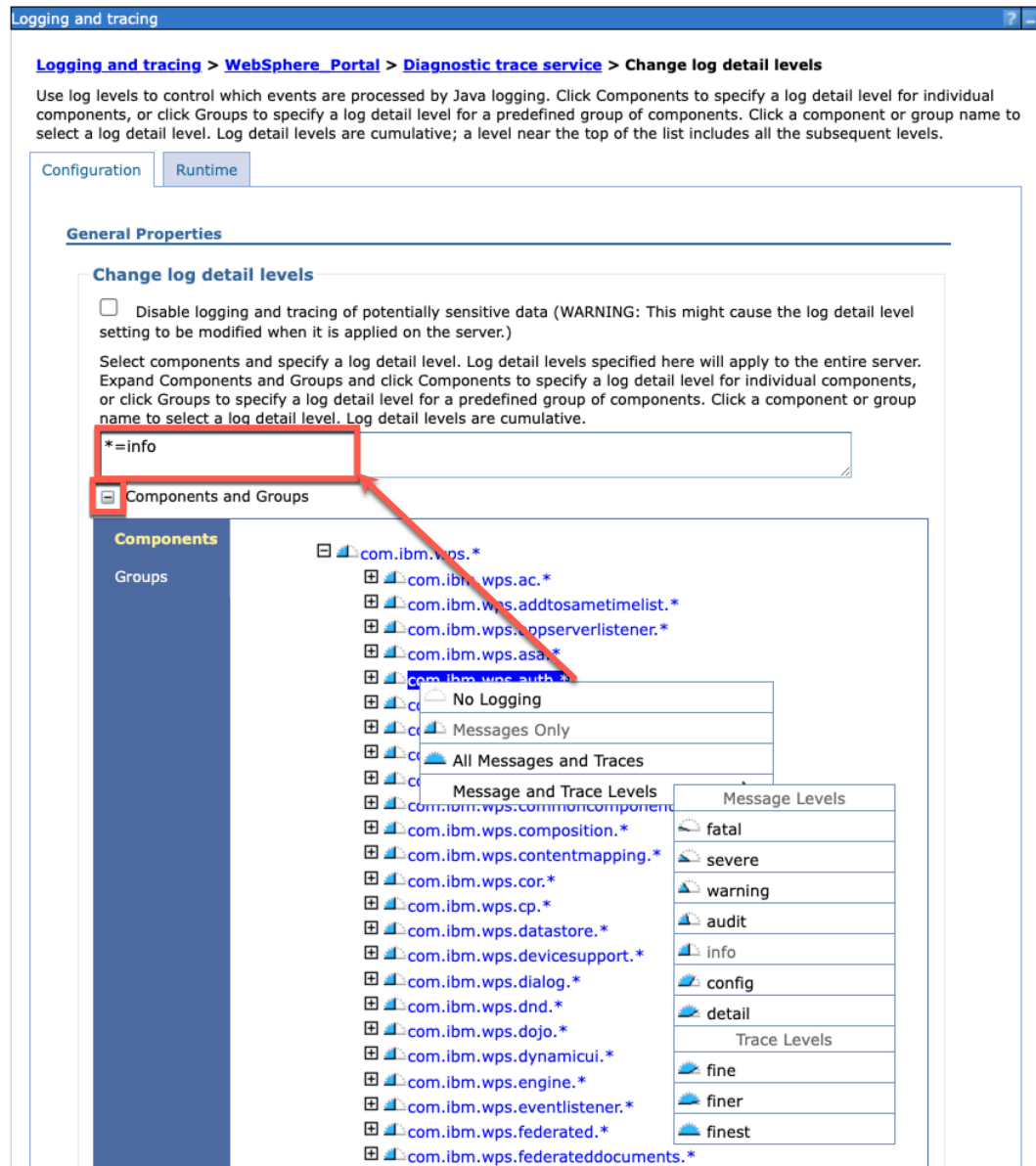
Retrieve Lines (eq. 250-600)

Refresh

**Log File**

```
***** Start Display Current Environment *****
WebSphere Platform 9.0.5.18 [ND 9.0.5.18 f5182346.02] [JAVA8 8.0.8.15 pxa6480sr8fp15-20231030_01] running with proce:
Full server name is dockerCell\dockerNode\WebSphere_Portal-28378
Detailed IFix information: 9.0.0.0-WASProd-IFPH61002(PH00569,PH02192,PH03525,PH07297,PH08804,PH10503,PH10892,PH11:
Host Operating System is Linux, version 6.1.100+
Java version = 1.8.0_391, Java Runtime Version = 8.0.8.15 - pxa6480sr8fp15-20231030_01(SR8 FP15), Java Compiler = j9:
was.install.root = /opt/HCL/AppServer
user.install.root = /opt/HCL/wp_profile
Java Home = /opt/HCL/AppServer/java/8.0/jre
ws.ext.dirs = /opt/HCL/AppServer/java/8.0/lib:/opt/HCL/wp_profile/classes:/opt/HCL/AppServer/classes:/opt/HCL/AppSer
Classpath = /opt/HCL/wp_profile/properties:/opt/HCL/AppServer/properties:/opt/HCL/AppServer/lib/startup.jar:/opt/HCL
Java Library path = /opt/HCL/AppServer/lib/native/linux/x86_64:/opt/HCL/AppServer/java/8.0/jre/lib/amd64/compressed
Orb Version = IBM Java ORB build orbdev-userlvl-20230924.2334
Max file descriptor count = 1048576
Current trace specification = *=info:com.ibm.wps.services.puma.*=all:com.ibm.wps.puma.*=all:com.ibm.wps.auth.*=all:c
***** End Display Current Environment *****
[10/22/24 15:33:34:743 UTC] 0000cbd8 PumaHomeImpl > com.ibm.wps.services.puma.PumaHomeImpl getProfile() ENTRY
[10/22/24 15:33:34:751 UTC] 000016d9 PumaEngineHel > com.ibm.wps.um.PumaEngineHelper endRequest ENTRY
[10/22/24 15:33:34:794 UTC] 0000cbd8 PumaHomeImpl < com.ibm.wps.services.puma.PumaHomeImpl getProfile() RETURN
[10/22/24 15:33:34:743 UTC] 0000cbda PumaDNHelper > com.ibm.wps.puma.util.PumaDNHelper normalizeDistinguishedName Ef
[10/22/24 15:33:34:794 UTC] 0000cbd8 PumaProfileIm > com.ibm.wps.um.PumaProfileImpl PUMA API ENTRY getIdentifiER ENTI
```

12. Then go back to change the log details level. Click **WebSphere\_Portal, Diagnostic trace service, Change log detail levels**. Notice you may change the log detail levels here and if you expand the Components and Groups, you'll see all the possible options and log levels.

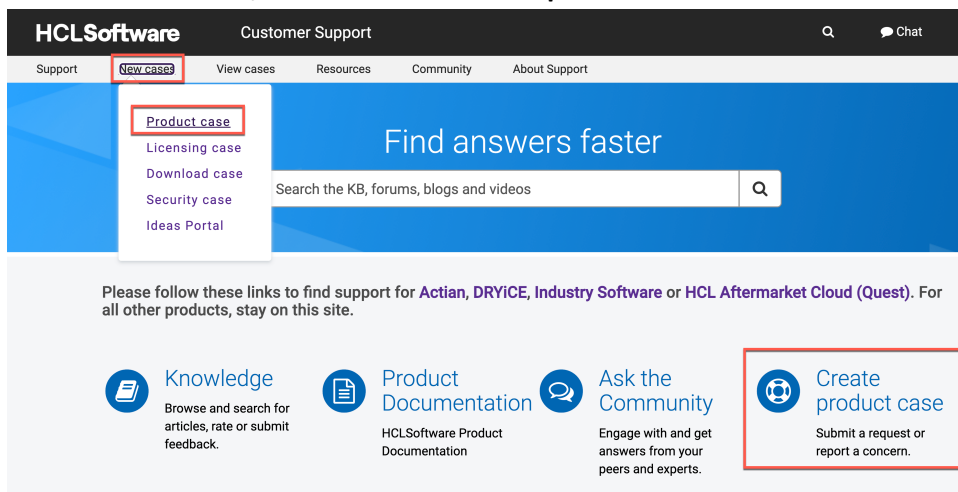


Congratulations! You successfully enabled tracing for authentication and checked their traces in the trace.log file.

## Part 3: Prepare to Open a Case with Support

In this part, you learn how to prepare yourself to open a case with HCL Support.

1. You first need to check if the problem is known. Use log files and data collection on the topic to learn more on the issue. Check the Help Center <https://hclsw.co/dx-product-documentation> and Product Knowledge Base, use the Product Forum <https://hclsw.co/dx-support-forum> and DXers User Group <https://dxers.ug>. If you do not find a solution, then you may open a support case using the HCLSoftware Customer Support portal <https://support.hcl-software.com/csm>. Ensure your you are correctly registered. If not follow this guidance: [https://support.hcl-software.com/csm?id=kb\\_article&sysparm\\_article=KB0010165](https://support.hcl-software.com/csm?id=kb_article&sysparm_article=KB0010165). Then create your product case. Click **New case**, **Product case** or **Create product case**.



2. Select the right product and product version. You will find the possible public versions, once selected a product. In this example, the selected product is HCL Digital Experience Cloud Native, version 9.5.2.

3. Select the appropriate priority, e.g. 2 - High.

	<p>* Priority</p> <div>2 - High ▼</div>
--	---

With these possible options.

Priority	Business Impact	Definition
1	Critical	<p>An issue with the product or service that impacts critical business functionality in your production environment and requires immediate attention. No procedural workaround is available.</p> <p><b>Note:</b> 24x7 assistance requires you to ensure availability of necessary technical resources to assist HCLSoftware Support with any requests related to problem determination for the case.</p>
2	Significant	An issue with the product or service that significantly limits functionality and requires prompt attention. A business deadline may be in jeopardy.
3	Minor	An issue or question related to the product or service that has low impact to business operations.
4	None	A question (possibly non-technical) that has no impact to your business operations.

4. Then provide clear title and description. The title should summary the problem you have and may contain the error code. The description should provide Business Impact details which may include the type of environment (Production, Test, Development, etc.), specific target date(s) related to case (Go-Live, Project deadline, etc.), the number of users affected, frequency of issue and workarounds available, etc. This helps the support team understand the priority of your case. You may use the HCLSoftware Support Case for HCL Digital Experience document from your downloaded resources to help completing this. Open it, copy its content for Business Impact, Environment and Description and paste it in the description field. Then use it to complete each topic.

**HCLSoftware** Customer Support

Support New cases View cases Resources Community About Support

Home > Customer Service > Support > Create Product Case

Search

\*Subject

Clear product case title

\*Description

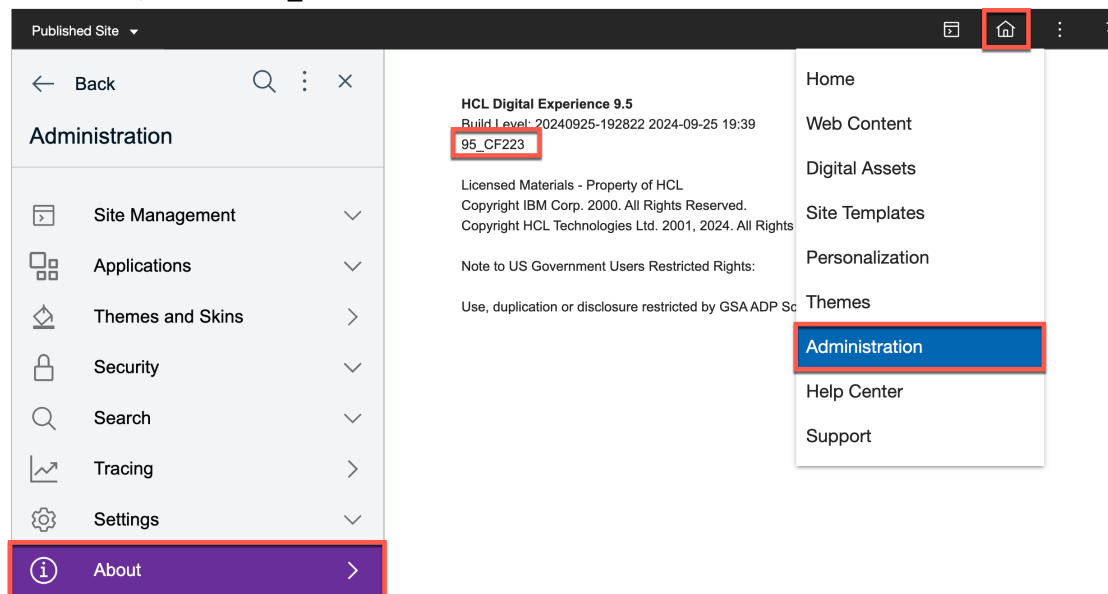
Paragraph B I

**Business Impact**

- What type of environment is this? (Production, Test, Development, etc.) If Production, is the system live?
- Is the issue occurring in more than one application?

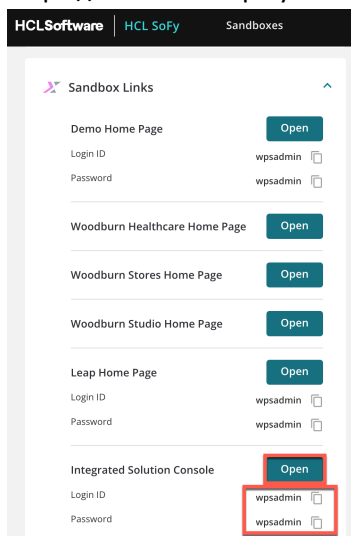
Submit

5. Also provide more detailed information on your environment, like the current DX server version, OS, DB, WAS and Java. You may get this from the Administration – About page. Open the applications menu, click **Administration**, **About** and you'll find the version details. In this case, it shows 95\_CF223 which means it is on version 9.5 CF223.





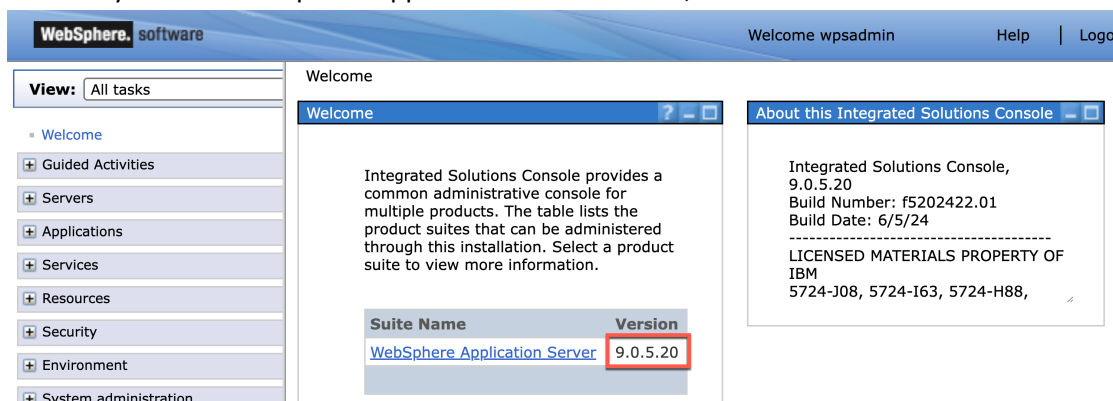
6. In some cases, for a traditional deployment of DX, you may be asked for the WAS version. You can get that using the Integrated Solution Console. From your sandbox, you may easily access this and find the right login ID and password to use. Click **Open**. It opens a URL like <https://dx.sbx0000.play.hclsofy.com/ibm/console>



7. And log in with the user ID and password. This may log out your current user, if you use the same browser. You could use a private or incognito window to avoid this.



8. You easily see the WebSphere Application Server version, here 9.0.5.20.



9. You may store these updates as part of your version of the HCL Software Support Case for HCL Digital Experience document, so each new case, you have this ready and up to date. And of course, you should provide a description of your case, that includes the expected and actual behavior, when behavior has been observed, the symptoms and steps to reproduce. Once completed, you can submit. Click **Submit**.

\*Subject

\*Description

Submit

10. Now your case has been created and you may add more information.

HCLSoftware

Customer Support

Support

New cases

View cases

Resources

Community

About Support

Home > My Cases > CS

Search

Case details

Number

CS

Case Priority

2 - High

Status

New

Entitlement

HCL Digital Experience

Type

Product

Subject

Clear product case title

Customer Name

Contact

Product

HCL Digital Experience Cloud Native

Actions

Close

Enter an email address that will receive notifications when the case is updated:

Email Address

Add

Select Priority

Submit

B I U System Font

Send

11. For example, you may change the priority.

HCLSoftware

Customer Support

Support

New cases

View cases

Resources

Community

About Support

Home > My Cases > CS

Search

B I U System Font

Send

Select Priority

Select Priority

1 - Critical

2 - High

3 - Moderate

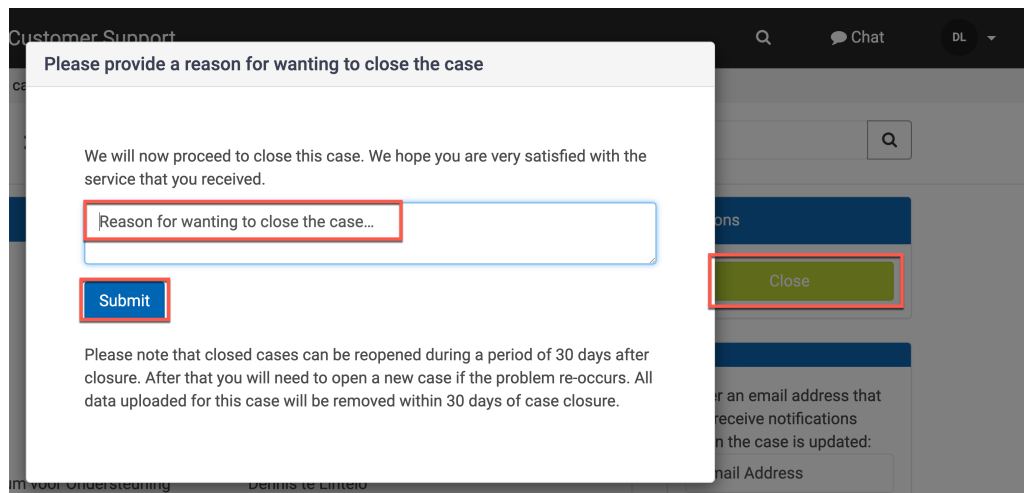
4 - Low

12. You also provide any additional supporting information which may include product log files, system log files including traces or error messages, screenshots, recorded videos of the problem and, if applicable, the output file of a collector tool, like wpcollector and mustgather, for your problem. Click **Upload a file**.

13. Then choose the file and send. Click **Choose file**, select your file and click **Submit**.

14. And to keep other team members involved on your case, you may add them to the watchlist. Add their e-mail addresses one by one and click **Add**. You get notified it is added and when you refresh it shows.

15. Once your case is solved, close it with a reason. Click **Close**, provide your reason and click **Submit**.



The screenshot shows a 'Customer Support' interface with a modal dialog box titled 'Please provide a reason for wanting to close the case'. The modal contains the following text: 'We will now proceed to close this case. We hope you are very satisfied with the service that you received.' Below this is a text input field with the placeholder 'Reason for wanting to close the case...'. A blue 'Submit' button is located below the input field. At the bottom of the modal, there is a note: 'Please note that closed cases can be reopened during a period of 30 days after closure. After that you will need to open a new case if the problem re-occurs. All data uploaded for this case will be removed within 30 days of case closure.' In the background, a 'Close' button is visible on the right side of the interface.

Congratulations! You successfully learned how to open a new case to get fast and good assistance.

## Conclusion

You have learned how to monitor and troubleshoot issues with your HCL Digital Experience deployment.

While there are many ways to access the log files, you learned how to access the log files and look at the SystemOut.log and SystemErr.log files on HCL SoFy using the HCL SoFy Solution Console.

You also learned how to enable the tracing on access control, analyze the results in the trace.log and use the Help Center to find any details.

And you learned how to prepare yourself to open a case with HCL Support.

## Resources

Refer to the following resources to learn more:

HCL Digital Experience Home - <https://hclsw.co/dx>

HCL Digital Experience on HCL Solutions Factory (SoFy) - <https://hclsofy.com/>

HCL Software - <https://hclsw.co/software>

HCL Product Support - <https://hclsw.co/product-support>

HCL DX Product Documentation - <https://hclsw.co/dx-product-documentation>

HCL DX Support Q&A Forum - <https://hclsw.co/dx-support-forum>

HCL DX Video Playlist on YouTube - <https://hclsw.co/dx-video-playlist>

HCL DX Product Ideas - <https://hclsw.co/dx-ideas>

HCL DX Product Demos - <https://hclsw.co/dx-product-demo>

HCL DX Did You Know? Videos - <https://hclsw.co/dx-dyk-videos>

HCL DX GitHub - <https://hclsw.co/dx-github>

HCL DX Web Developer Toolkit - <https://github.com/HCL-TECH-SOFTWARE/WebDevToolkitForDx>

## Legal statements

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