

SOFTWARE INSTALLATION GUIDE (LINUX)

erwin Business User Portal

for Data Intelligence Suite

VERSION 11.1

Certified Release on Log4j 2.17.1

This document provides the instructions to install the Business User Portal software 11.1 version.

The 11.1 version is certified on Log4j 2.17.1

Quick Start Installation Guide



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1 About this Guide

This document describes the installation of erwin DI Business User Portal on a dedicated on-premises server. It explains the software installation procedure of erwin DI Business User portal, configuration tasks, and troubleshooting information. This document also describes the technical specifications and the pre-requisites required for the successful installation of erwin DI Business User Portal software

1.1 Intended Audience

This installation guide is intended for the system administrator or a consultant who intends to install the erwin DI Business User Portal (BUP) software product.

1.2 Pre-requisites for Business User Portal 11.1 installation

To install erwin DI Business User Portal 11.1

- It is mandatory to have the erwin Data intelligence (DI) Suite 11.1 already installed and running
- It is recommended to deploy erwin DI Business User Portal 11.1 on the same Server/VM where erwin Data Intelligence (DI) Suite 11.1 is installed. However, a separate server can be used to ensure optimal performance levels in the case of large data sets
- The same erwin DI is leveraged by the Business User Portal application.

2 About DI Business User Portal

The erwin DI Business User Portal is a self-service portal geared primarily toward business users to facilitate easy access to data management and governance information. With simplistic UI, its flexible search mechanisms, business users can look up information and then perform the required analysis for quick and accurate decision-making.

3 Software Solution Architecture





4 System and Software Requirements

4.1 Hardware Specs for Standard Edition

Type of Server	Standalone/VM It is recommended to deploy erwin DI Business User Portal 11.0 on the same r Server/VM where erwin Data Intelligence (DI) Suite 11.0 is installed. However a separate server can be used to ensure optimal performance levels in the ca of large data sets	
Processor	64 Bit	
Cores	4 cores minimum	
RAM	 16 GB – for limited user POCs 32-64 GB – for enterprise production deployment Calculate and add RAM size for BUP on top of the DI Application RAM size already allocated Increase as needed or introduce load balancing depending on the number of users 	
Hard Drive	200 – 300 GB minimum	

4.2 Software Compatibility

Operating Systems	Microsoft Windows Server 2016 and higher
	• RHEL - 7.6
	Linux - v4.19 and above
	Amazon Linux 2
Supported Databases	 SQL Server – 2016, 2017, 2019, AWS RDS, Azure SQL Server
	• Oracle – 12c, 18c, 19c
Web Browsers	Google Chrome – v86.0
	• Firefox – v82.0
	• Edge – v86x
Supported Web Servers	Apache Tomcat - v9.0.45/46
Java Version	 AdoptOpen JDK/JRE 8u282-b08



4.3 Pre-requisites to install Erwin DI Business User portal

- It is mandatory to have erwin Data intelligence (DI) Suite 11.1 installed and working
- It is recommended to deploy erwin DI Business User Portal 11.1 on the same Server/VM where erwin Data Intelligence (DI) Suite 11.1 is installed. However, a separate server can be used to ensure optimal performance levels in the case of large data sets.
- ✓ Adopt Open Java JRE and Tomcat webserver are standard software prerequisites to install and run erwin DI Business User Portal.

4.3.1 Database Server

Dual Core or higher.

The software uses the same backend Database as erwin DI. The erwin BUP application is mapped to the same backend database during the installation process.

5 Installing the erwin Business User Portal software

You can install the Business User Portal by following the below steps

Step 1: Deploy the Business User Portal (BUP) war file in tomcat server.

- Step 2: Configure the BUP application properties in the tomcat application path.
- Step 3: Restart the tomcat server.

Step 4: Login and activate the application with a license key.

5.1 Step 2: Deploy erwin DI Business User Portal (BUP) war file in tomcat

- 1. Go into the WAR folder of the installation pack
- 2. Copy the "erwinBUP.war" file
- 3. Go into the webapps folder of Tomcat directory (e.g. /opt/tomcat/apache-tomcat-9.0.46) and paste the "erwinBUP.war" file into this webapps folder.
- 4. Wait a few minutes (2-3 min). You will see a newly created "erwinBUP" folder.

5.2 Step 3: Configure application properties of BUP in the tomcat server

The below properties need to be changed in the *application.properties* file of BUP in the tomcat. The *application.properties* files enables the communication between erwin BUP and erwin DI Suite. This files also provides the feasibility of configuring other properties like SAML, LDAP, SMTP session timeout etc.,

You can find the *application.properties* of BUP in tomcat in the following directory (/opt/tomcat/apache-tomcat-9.0.46=/webapps/<<erwinBUP>>/WEB-INF/classes)

Configuring the Application.properties file

Note **: "#" in the application.properties file indicates that the line is commented.



5.2.1 erwin DI Suite URL and the application path

DIS application URL dis.application.url=http://localhost:7080/erwinDI # DIS application path dis.application.path=C:/Program Files/Apache Software Foundation/Tomcat 9.0/webapps/erwinDI # DIS documents storage path (same as the path provided in the icc.properties file of DI Suite) dis.icc.documents.path=C:/MappingManager/erwinDI

- Enter the application URL of the erwin DI Suite application currently running at your end Eg: <u>http://localhost:8080/erwinDISuite</u>
- Provide the full tomcat application path of the erwin DI Suite application
 E.g: /opt/tomcat/apache-tomcat-9.0.37/webapps/erwinDISuite
 (If copied directly from windows directory, replace backward slash (\) with forward slash (/)
- Enter the location of the directory for storing files (e.g., /opt/tomcat/MappingManager)
 This should be the same path provided in the iccdocuments.properties file of DI Suite
 (If copied directly from windows directory, replace backward slash (\) with forward slash (/)

5.2.2 Configure the backend Database

5.2.2.1 For Microsoft SQL Server



** ensure that all properties under "Oracle Datasource" are commented with "#"

- 1. Enter the BUP database URL and the database name.
 - E.g.: jdbc:sqlserver://localhost:1433;databaseName=erwinDISuite
 - Hostname = localhost (deployed locally)
 - Port No = 1433 (provided while installing the database)
 - Database = erwinDISuite (same database as erwin DI)
- 2. Provide the database username.
 - E.g.: questDIUser (Application account user name used to connect to the DISuite backend database)
- 3. Enter the database password created to the database user. E.g.: questDIPassword (Application account user password used to connect to the DISuite backend database)



5.2.2.2 For Oracle

** Remove all the Hashes under "Oracle Datasource" as shown in the above figure, and ensure that all properties under "Microsoft SQL Server Datasource" are commented with "#"

5.2.2.2.1 BUP Datasource

- 4. Enter the BUP database URL and the database name.
 - E.g.: jdbc:oracle:thin:@//localhost:1521/ORCL Hostname = localhost (deployed locally) Port No = 1521 (provided while installing the database) SID = ORCL
- 5. Provide the database username. E.g.: erwinDIS (database account username to connect to the DI database)
- 6. Enter the database password created to the database user. E.g.: erwinDIpassword (database account user password to connect to the DI database)

5.2.3 Search Configuration

If customers want to use the elastic search functionality - enable the following. Otherwise, set it false.

Please note that elastic search requires two additional 3rd party software installations i.e. **Opendistro Elastic Search** and **Logstash**. Ensure that these 2 software packages are installed and configured before you change the below properties.

Click here to navigate to elastic search section, for how to install and configure Elastic Search and Opendistro

```
# Elasticsearch Configuration-------
globalsearch.enabled=true
elasticsearch.protocol=https
elasticsearch.certificate.validation=false
elasticsearch.host=localhost
elasticsearch.port=9200
elasticsearch.username=admin
elasticsearch.password=admin
```

- 1. Enable globalsearch.enabled to "true", to enable elastic search
- 2. Host If elastic search is deployed in the same server as of BUP. Make it as localhost, else provide the actual server name
- 3. Port Default port number for opendistro elastic search is 9200. Update this port number if elastic search port number is configured to use another port number

5.2.4 LDAP Configuration

If LDAP is not required, no changes are needed to this section.



To enable LDAP, fill the necessary fields. For More on LDAP, please go to LDAP Prerequisite Configurations

#-LDAP Configuration					
and fortunes like and like follow					
app.teatures.ldap.enabled=talse					
app.ldap.url=ldap:// <hostname>:<port>/<target dn="" entry=""></target></port></hostname>					
app.ldap.manager.dn= <manager dn=""></manager>					
app.ldap.manager.password= <password></password>					
#The type of ldap server. Value can be either default or activedirectory. If omitted, it will default to default.					
#app.ldap.server.type=activedirectory					
app.ldap.group.role.autoprovision=true					
app.ldap.group.role.attribute=cn					
app.ldap.group.search.base=ou=groups					
app.ldap.group.search.filter=member={0}					
app.ldap.user.search.base=ou=users					
app.ldap.user.search.filter=uid={0}					
app.ldap.user.full.name.attribute=cn					
app.ldap.user.email.attribute=mail					
app.ldap.config.filepath=classpath:/ldap/ldapConfig.json					

if LDAP authentication is required:

- 1. Turn on the flag (app.features.ldap.enabled) to "true"
- 2. Provide the LDAP URL Eg: ldap://192.168.60.9/dc=vm
- Give the LDAP Manger distinguished name Eg: cn=admin,dc=vm
- 4. Provide password for LDAP Eg: openstack

5.2.5 SAML Configuration

If SAML is not required, No changes are needed to this section. To enable SAML, fill the necessary fields.

#-SAML Configuration-----

app.features.saml.enabled=false

```
app.saml.keystore.filepath=classpath:/saml/samlKeystore.jks
```

app.saml.keystore.storepassword=erwinbup@1

app.saml.keystore.aliasname=erwinbup

app.saml.keystore.aliaspassword=erwinbup

app.saml.group.role.autoprovision=true

app.saml.config.filepath=classpath:/saml/samlConfig.json

app.saml.idp.default.filepath=classpath:/metadata/idp-metadata.xml

app.saml.idp.metadata.trustcheck=false

If SAML is required:

- 1. Enable the flag (app.features.saml.enabled) to "true"
- 2. Provide the password for SAML
- 3. Enter aliasname



5.2.6 Email Configuration

SMTP is used for email configuration, fill the necessary fields to enable email configuration

- 1. Turn on the flag (app.features.mail.enabled) to "true"
- 2. Enter SMTP mail server host Eg: 127.0.0.1
- 3. Enter SMTP server username
- 4. Enter SMTP server password

5.2.7 Session Configuration

```
#-Session Configuration------
app.accesstoken.secret=accesstokensecret
app.refreshtoken.secret=refreshtokensecret
# Time in milliseconds for session to expire. Please note that the actual session timeout will be double
app.accesstoken.expirationinms=1800000
```

Configure the session timeout period for BUP web portal. This is the time defined in milliseconds

5.3 Step 4: Restart the tomcat server

Once all the above application properties are entered restart the tomcat server

5.4 Step 5: Login and activate the license key

1. Type the URL http://iP_ADDRESS:Port#/erwinBUP/

IP_ADDRESS = IP Address or Physical Name of Server where tomcat is running

Port#: Port Number on which Tomcat is configured



DI Business User Portal
Username *
Password *
LOGIN
Forgot password⊅ Copyright © 2021 Quest Software Inc. All Rights Reserved.

- To obtain a license, Business user portal license customers need to contact erwin support by <u>telephone</u> or the <u>web licensing form</u>, or contact your erwin sales counterpart.
- Once you have the license key, login using the Administrator account → click on the *Help* icon and then navigate to the *About* section. Click on "change" and enter the license key text
- Once the license key is pasted, click on activate.



About		
Product Information		
Product Name		
DI Business User Portal		
Version Number		
11.0.0-rc.3		
License Information		
Licensed To		
erwin		
License Start Date		
07/02/2021 12:00 AM		
License End Date		
07/02/2022 12:00 AM		
Total Users		
20		
	A valid license was not found.	CHANGE



bout		
bout		
Product Information		
Product Name		
DI Business User Portal		
11.0.0-rc.3		
	Activate License	
	To update your current license, copy the key below and click 'Activate'.	
License Information	License Key	
Licensed To	3bDZVhPMEFLNGIrd1BZLzJMWIhTSkpEUm83PVQ0TmQvSDFDWU ~ 825ErJ2IVETJSK216WIAUQ1ovvDXMPDRTL0MIVRDTZSS0KVEFL	
erwin	PethDQ2F6UUMyWC5CxpRMUFcmZ4WUJ35UxWktwDMwSkp	
	SZ101EENhWWpBZ0NIOWU20VPxYnJ2U2pKSRST3g5ekNhem1R VD5F02F61/VPu20VLVE4ry0HddHG2WVL1mbFcRVLVLV20A	
07/02/2021 12:00 AM	URUSORJWURqSG40PTNC02E400==	
License End Date	CANCEL ACTIVATE	
07/02/2022 12:00 AM		

About	
Product Information	
Product Name	
DI Business User Portal	
Version Number	
11.0.0-rc.3	
License Information	
Licensed To	
erwin	
License Start Date	
07/02/2021 12:00 AM	
License End Date	
07/02/2022 12:00 AM	
Tatal Llasse	
20	
	CHANGE

5.4.1 Points to remember during the License Activation

- 1. An Administrator can login to the Business User Portal using the Administrator account without any license key. However, users will not be able to see any data, till a valid license key is entered and activated.
- 2. Ensure that all the spaces in the beginning & in the end of the license text are trimmed while pasting the License key
- 3. Erwin DI Business User portal allows multi-login; however, the license always validates the number of concurrent users.
 - a. For example: If an organization has a license for 50 users, at any given point erwin DI Business User portal, validates the concurrent user sessions. It allows same user login in multiple systems, but will not allow the 51 session as the organization exceeds its maximum concurrent user count



4. The Business User Portal's license is completely independent of erwin Data intelligence Suite. Customers need to contact their erwin counterpart or erwin support by <u>telephone</u> or the <u>web licensing form</u> to obtain a license key for the Business User Portal

6 LDAP Prerequisites

By default, erwin BUP has been configured for standalone database user authentication. However, erwin BUP provides the capability to utilize LDAP for user authentication. Before configuring LDAP user authentication, some prerequisites are needed to be performed.

6.1.1 Configure LDAP user groups

erwin BUP is initially configured for two roles: Administrator and public. Erwin BUP can detect and automatically map LDAP user groups to erwin BUP roles. The application is configured to map the following user groups to roles:

- business-admin -> Administrator
- business-user -> public

Therefore, to take advantage of the default configuration only the two user groups need to be created: businessadmin and business-user.

6.1.2 Modifying LDAP role mappings

Some users may prefer to use different groups or roles. To modify the role mapping, locate and modify the ldapConfig.json file. This file can be located under: C:\Program Files\Apache Software Foundation\Tomcat 8.5\webapps\<<erwinBUP>>\WEB-INF\classes.

For configuration in application. properties, please follow the steps from LDAP Configuration section

6.2 Elastic Search Configuration

Elastic search enables users to easily get the information that they are searching for. Elasticsearch and Logstash are opensource and are free to use under the Apache 2 license. Here are the steps needed to install and configure elastic search.

erwin Business User Portal allows the user to enable or disable the global search using application properties.

To enable make the below flag as "true"

```
# Elasticsearch Configuration------
globalsearch.enabled=true
elasticsearch.protocol=https
elasticsearch.certificate.validation=false
elasticsearch.host=localhost
elasticsearch.port=9200
elasticsearch.username=admin
elasticsearch.password=admin
```

6.2.1 Installs required

• Open Distro 1.13.3 (windows) and 1.13.2 (Linux)

Download windows.exe (or) .zip opendisto elasticsearch file from link

- Java 11 Requires java 11 for Opendistro/logstash to run
- Logstash Download the Logstash 7.16.x OSS for windows from this link



6.2.2 Recommended System Requirements for elastic Search

For Opendistro elastic search

Mamoni	Minimum – 16GB
wemory	Recommended – 32-64GB
	Minimum – 8GB
Heap Size	Recommended 16GB – 32GB
	Recommended is half the allocated amount of memory
CPU	Recommended – 2-8 Cores
Disk	Recommended – 200 – 300GB

For Logstash

'

Memory	Recommended – 8-16GB
Heap Size	Recommended is half the allocated amount of memory
	Recommended – 4-8GB
CPU	Recommended – 2 Cores
Disk	Recommended – 1GB

6.2.3 Steps of installation

Once all the above software's are downloaded, here are the steps to install them

Step 1: Install Java 11 (or) copy dump to your c drive and ensure that JAVA_HOME variable is set for java 11

export JAVA_HOME="/usr/lib/jdk-11.0.9"

export PATH=\$JAVA_HOME/bin:\$PATH

Step 2: Install open Distro - If it asks for Java locate it in /usr/lib/jdk-11.0.9/bin/Java.exe

Step 3: Start Open distro.

- Open cmd prompt in admin mode
- Navigate to the location where Opendistro is installed.
 - o Eg: /home/erwin/Downloads/OpenDistroForElasticSearch\bin
 - Open Terminal from OpenDistroForElasticSearch folder path
- Run elasticsearch.bat

A Applications Places Terminal	Tue 12:25	- A	())	O
erwin@localhost:~/Downloads/opendistroforelasticsearch-1.11.0		-	۰	×
File Edit View Search Terminal Help				
[erwin@localhost opendistroforelasticsearch-1.11.0]\$./opendistro-tar-install.sh				

Step 4: set-up logstash



6.2.4 Configuration using automated Shell script

To run the elastic search, customers need to provide BUP database details and the required properties. A script is provided along with erwinBUP.zip file. Follow the below steps

Step 1: Extract erwinBUP_v11.0.zip. It has both erwinBUP.war file and the plugin zip file

🚾 bup_logstash_pluginl.zip
erwinBUP.war

Step 2: Extract the bup_logstash_plugin-11.0.zip file.

logstash
🚾 bup_logstash_pluginzip
erwinBUP.war
install.properties
👜 install.ps1
install.sh
logstash-input-bup_input_plugin-10.2.0.r
logstash-output-bup_output_plugin-10.2
readme.txt

Step 3: Update install.properties file

Applications Places Text Editor	Tue 12:26 🛔 🐠	Ο
Open - P install.prop -/Downloads	erties 10.2.2 Save = - •	×
<pre>#This is the logstash home directory. #For Linux and if installed via a package installer like apt-get, it is t #For Windows, this is a zip file. Therefore, this is where the contents o logstash home = /home/erwin/Downloads/logstash-7.10.0</pre>	ypically /usr/share/logstash f the zip file was extracted	
<pre>#This is the logstash directory which contains pipelines.yml #For Linux and if installed via a package installer like apt-get, it is t #For Windows, this is a zip file. Therefore, this is ths "config" director logstash_settings = /home/erwin/Downloads/logstash-7.10.0/config</pre>	ypically /etc/logstash ry of where the zip file was extracted	
#This is the logstash directory which contains the pipeline config files. #For Linux and if installed via package installer like apt-get, it is typ #For Windows, this is a zip file. Therefore, this can be any directory un logstash conf = /home/erwin/Downloads/logstash-7.10.0/pipeline	ically /etc/logstash/conf.d der where the zip file was extracted, "pipeline" is a good exampl	e.
#Oracle #jdbc_url = jdbc:oracle:thin:@// <hostname>:<port>/<sid> #jdbc_driver_class_name = oracle.jdbc.OracleDriver #jdbc_user = <database user=""></database></sid></port></hostname>		
<pre>#SQL Server jdbc_url = jdbc:sqlserver://10.1.85.29:1433;databaseName=BUP104 jdbc_driver_class_name = com.microsoft.sqlserver.jdbc.SQLServerDriver jdbc_user = sa</pre>		
elasticsearch_host = https://localhost:9200 elasticsearch_user = admin		

Parameters

- logstash_home = <logstash home directory>
 - Enter the home directory of logstash
 - Eg: /home/erwin/Downloads/logstash-7.16.3
- logstash_settings = <logstash settings directory>
 - o Enter the folder for logstash settings usually config files
 - Eg: /home/erwin/Downloads/logstash-7.16.3/config
- logstash_conf = <logstash configuration directory>



- Enter the location of pipleline folder
- o A new folder named "Pipeline" will be automatically created under logstash.
- o Eg: /home/erwin/Downloads/logstash-7.16.3/pipeline

Applications Places Text Editor	Tue 12:26 👫 🐠 🖒
Open	Save = _ • ×
#This is the logstash home directory.	
#For Linux and if installed via a package installer like apt-get, it is typically /usr/share/logstash	
#For Windows, this is a zip file. Therefore, this is where the contents of the zip file was extracted	
<pre>logstash home = /home/erwin/Downloads/logstash-7.10.0</pre>	
#This is the logstash directory which contains pipelines.yml	
#For Linux and if installed via a package installer like apt-get, it is typically /etc/logstash	
#For Windows, this is a zip file. Therefore, this is ths "config" directory of where the zip file was ext	racted
logstash_settings = /home/erwin/Downloads/logstash-7.10.0/config	
#This is the logstash directory which contains the pipeline config files.	
#For Linux and if installed via package installer like apt-get, it is typically /etc/logstash/conf.d	
#For Windows, this is a zip file. Therefore, this can be any directory under where the zip file was extra-	cted, "pipeline" is a good example.
<pre>logstash conf = /home/erwin/Downloads/logstash-7.10.0/pipeline</pre>	

- Database Properties
 - o Enter the address of DI database, along with the name of the database
 - Provide the username of the DI database



- If Oracle, uncomment the below lines under oracle, and comment all the lines under SQL. Provide the above details
- Enter logstash properties

```
elasticsearch_host = https://localhost:9200
elasticsearch_user = admin
```

Step 4: execute the script

- Run erwinbup plugin installation script (install.sh)
- Open terminal from the downloaded & extracted erwinBUP folder à eg: \opt\erwinBUPplugin10.2.0
- Run install.sh by executing the following commands
 - 1. chmod 755 install.sh
 - 2. sudo su
 - 3. ./install.sh

erwin@localhost:~/Downloads/10.2.2	-	۰	×
File Edit View Search Terminal Help			
[erwin@localhost 10.2.2]\$ chmod 755 install.sh [erwin@localhost 10.2.2]\$ ■			



erwin@localhost:/home/erwin/Downloads/10.2.2	-		×
ile Edit View Search Terminal Help erwin@localhost 10.2.2]\$ chmod 755 install.sh erwin@localhost 10.2.2]\$ sudo su sudo] password for erwin: root@localhost 10.2.2]#			
erwin@localhost:/home/erwin/Downloads/10.2.2	2	-	
File Edit View Search Terminal Help			
<pre>[erwin@localhost 10.2.2]\$ chmod 755 install.sh [erwin@localhost 10.2.2]\$ sudo su [sudo] password for erwin: [root@localhost 10.2.2]# ./install.sh Checking logstash home directory existence Checking if logstash is installed as a service</pre>			

Logstash is not install as a service. Checking logstash settings directory existence... Checking logstash conf directory existence... Please enter your jdbc password: Please enter your Elasticsearch password:

- Enter BUP database jdbc password
- Enter elastic search password. (Default password is "admin")
- Wait till you see the message that the plugin is installed successfully

6.2.5 Start logstash

- Open terminal
- Navigate to logstash home \usr\logstash-7.16.3 (or)7.17.0/bin
- Run "logstash"

6.2.6 Configure application.properties of the file

Go to application. Properties & Change the below properties

```
# Elasticsearch Configuration------
globalsearch.enabled=true
elasticsearch.protocol=https
elasticsearch.certificate.validation=false
elasticsearch.host=localhost
elasticsearch.port=9200
elasticsearch.username=admin
elasticsearch.password=admin
```

- Enable globalsearch.enabled to "true", to enable elastic search
- Host If elastic search is deployed in the same server as of BUP. Make it as localhost, else provide the server name



- Port Default port number of opendistro elastic search is 9200. Update this port number if elastic search port number is changed
- Restart the tomcat service.
- Access the application and search should be enabled.

If there are any errors and difficulties in installing BUP or in configuring elastic search reach out to erwin support and a support engineer will get in touch with you to help you with the installation process.

6.3 Ensuring Open Distro and Logstash are compatible with the latest Log4j 2.17.1 version

Once you have installed the below versions of the Open Distro and Logstash softwares.

- Open Distro to 1.13.3 (windows) and 1.13.2 (Linux)
- Logstash-oss to 7.16.3

Update Open Distro log4j jars to 2.17.1. The number of dependencies to update depends on OS. Binaries can be found here https://www.apache.org/dyn/closer.lua/logging/log4j/2.17.1/apache-log4j-2.17.1-bin.zip

Apache Downloads

Home page of The Apache Software Foundation

www.apache.org

From the above zip file content, copy the Log4j-core and Log4j-api 2.17.1 files and replace the below 2.11.1 and 2.13.1 files in your windows and linux installations.

Windows:

- C:\Program Files\Open Distro For Elasticsearch\plugins\opendistro_security\log4j-slf4j-impl-2.11.1.jar
- C:\Program Files\Open Distro For Elasticsearch\lib*log4j-core-2.11.1.jar*
- C:\Program Files\Open Distro For Elasticsearch\lib*log4j-api-2.11.1.jar*

Linux:

- /usr/share/elasticsearch/lib/log4j-api-2.11.1.jar
- /usr/share/elasticsearch/lib/log4j-core-2.11.1.jar
- /usr/share/elasticsearch/plugins/opendistro-performance-analyzer/performance-analyzer-rca/lib/*log4j-api-2.13.0.jar*
- /usr/share/elasticsearch/plugins/opendistro-performance-analyzer/performance-analyzer-rca/lib/*log4j-core-*2.13.0.jar
- /usr/share/elasticsearch/plugins/opendistro_security/log4j-slf4j-impl-2.11.1.jar
- /usr/share/elasticsearch/performance-analyzer-rca/lib/*log4j-api-2.13.0.jar*
- /usr/share/elasticsearch/performance-analyzer-rca/lib/log4j-core-2.13.0.jar