

Viewing draft edited by [EIKsupport LMC](#) 2 years ago[Preview Draft](#)

EBS Integration Kit - 2.3.1.x

Deployment Guide – Deploying the EIK in the PingFederate Server

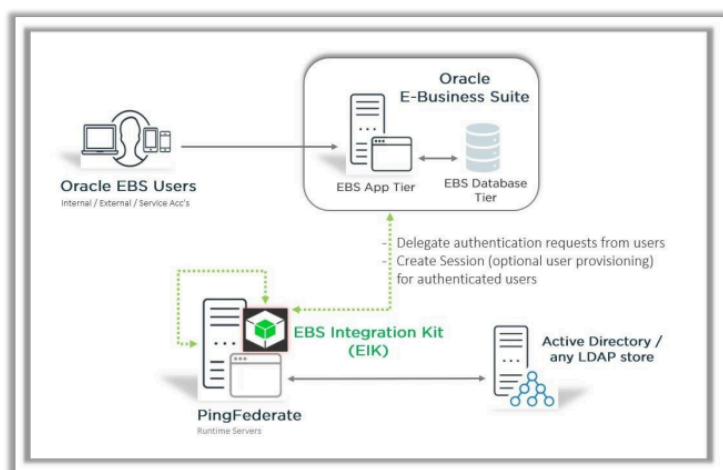
CONTENTS

- [EBS INTEGRATION KIT DESCRIPTION](#)
- [FEATURES](#)
- [BENEFITS](#)
- [SYSTEM REQUIREMENTS](#)
- [OVERVIEW OF THE FLOW](#)
- [DEPLOYMENT AND CONFIGURATION OF PINGFEDERATE](#)
- [CONFIGURATION OF OAUTH SERVER](#)
- [CONFIGURE SSL SERVER CERTIFICATE](#)
- [EIK DEPLOYMENT IN PINGFEDEARTE](#)
- [EIKAUTH CONFIG FILE GENERATION](#)
- [EBS DATA SOURCE \(DBCX\) FILE CREATION](#)
- [DEPLOYING THE LOG4J2.XML FILE](#)
- [DEPLOYING THE CACERTS FILE](#)
- [DEPLOYING THE SECURITY.PROPERTIES FILE](#)
- [DEPLOYING EBSAuth.war FILE](#)
- [SYSTEM PROFILE PARAMETERS CHANGES IN EBS](#)
- [SYSTEM PROFILE CHANGES](#)
- [SSO TESTING FOR ORACLE EBS](#)

EBS INTEGRATION KIT DESCRIPTION

PingFederate as an Identity Federation product includes adapters and integration kits that simplify integrations with Identity Stores as well as Applications. The Oracle EBS solution uses these capabilities to enable Single Sign-On. The EBS INTEGRATION KIT (EIK) from LikeMinds Consulting provides a simple deployment path with PingFederate to enable single sign-on (SSO) to Oracle E-Business Suite.

How does the EBS Integration Kit work?



The EBS Integration Kit is a light-weight java application which can be deployed in the PingFederate jetty-container which eliminates the need for dedicated server/hardware. EIK is OpenID Connect Compliant as a resource server and can be configured with PingFederate to receive Authentication and Authorization tokens. The EBS Integration Kit communicates with the Oracle E-Business Suite Database for Session creation and optional user-provisioning if required.

FEATURES

- Works seamlessly with PingFederate

ARTICLE PROPERTIES

Draft

AUTHOR

[Likeminds Support](#)

Created on Wed, 13 Dec 2023 at 12:44 AM

LOCATION

Category

[Knowledge Base](#)

Visible in: LikeMinds Consulting Inc - Help Desk

Folder

[Articles](#)

Visible to: All Users

SEARCH ENGINE OPTIMISATION

TITLE FOR SEARCH ENGINE

--

DESCRIPTION FOR SEARCH ENGINE

--

ANALYTICS

VERSIONS (53)

v.53 Current draft
22 Dec 2023, 5:20 AM
EIKsupport LMC

v.52 Draft
22 Dec 2023, 5:12 AM
EIKsupport LMC

v.51 Draft
20 Dec 2023, 10:22 PM
EIKsupport LMC

[Show more](#)

BENEFITS

- Helps achieve painless integration of modern IAM into your existing architecture
- Enables you to modernize or migrate off legacy IAM without disrupting critical access to Oracle E-Business Suite
- Frees you from vendor lock-in with legacy IAM licensing—you will only require your EBS license
- Requires no provisioning of additional hardware components

SYSTEM REQUIREMENTS

- Java JDK 1.8 (Recommended Version)
- PingFederate 8 and above
- EBS KIT package with a valid license file.

EBS Integration Kit	Oracle E-Business Suite	Oracle Database	PingFederate	PingAccess (optional)	WebLogic	Apache Tomcat
EIK 2.3.1.0	Releases with update packs 12.0.x to 12.1.x & 12.2 to 12.2.10	From 11g up to 19c release	PingFederate versions 8.x to 11.3.1	PingAccess versions 4.x to 7.0.x	WebLogic 12.2.1.4	Apache Tomcat 9.0.65

OVERVIEW OF THE FLOW

- When a user tries to login, his/her credentials are sent to Pingfederate.
- Pingfederate validates the entered credentials against the configured Authentication Store (i.e., any LDAP directory).
- The existence of the authenticated user will be checked against the EBS Database. If the user does exist in the EBS DB, an EBS session would be created, and the user would be allowed access to the requested page in EBS.
- If the authenticated user does not exist in the EBS DB, the user would not be authorized to access the EBS Application.
- If Just-In-Time Provisioning is enabled, authenticated users not present in the EBS DB would be provisioned by the EBS IKT, and EBS Sessions would then be created, thereby giving access to the EBS Application.

DEPLOYMENT AND CONFIGURATION OF PINGFEDERATE

PingFederate is a federation server that provides web single sign-on and API security for the resources in your organization.

CONFIGURATION OF OAUTH SERVER

Pre-requisite

- PingFederate application with IdP and OAuth/OIDC roles enabled.
- Authorization server setup in PingFederate OAuth server setting.
- A configured ping IdP adapter and/or authentication policy contract policy if required for authentication and grant mapping.

OAuth / OIDC Configurations

This setup will manage the configurations related to the OAuth client.

- Create a new Client in PingFederate for Authenion.

ARTICLE PROPERTIES

Draft

AUTHOR

[Likeminds Support](#)

Created on Wed, 13 Dec 2023 at 12:44 AM

LOCATION

Category

[Knowledge Base](#)

Visible in: LikeMinds Consulting Inc - Help Desk

Folder

[Articles](#)

Visible to: All Users

SEARCH ENGINE OPTIMISATION

TITLE FOR SEARCH ENGINE

--

DESCRIPTION FOR SEARCH ENGINE

--

ANALYTICS

VERSIONS (53)

v.53 Current draft
22 Dec 2023, 5:20 AM
EIKsupport LMC

v.52 Draft
22 Dec 2023, 5:12 AM
EIKsupport LMC

v.51 Draft
20 Dec 2023, 10:22 PM
EIKsupport LMC

◦ Client ID	◦ Unique value to identify clients in PingFederate
◦ Client Secret	◦ A secret value known only to this Client and PingFederate
◦ Redirect URIs	◦ https:// <pf/pa hostname>:<port>/EBSAuth/handler
◦ Bypass Authorizaton Approval	◦ Enable checkbox for bypassing consent screen
◦ Allowed Grant types	◦ Enable Authorization Code checkbox
◦ Default Access token manager	◦ Select the access token to map with this client
◦ OpenID Connect Policy	◦ Select the OpenID Connect policy created earlier

- Review the Client configurations and click **Save**.
- Map an OpenID Connect Policy to this Client with the following information.

For example:

In OpenID Connect Policy Management tab, create/modify the policy and add the attributes that need to be sent through id_token and userinfo endpoint.

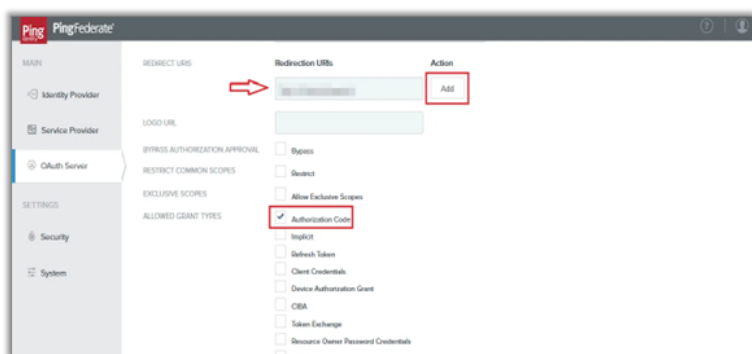
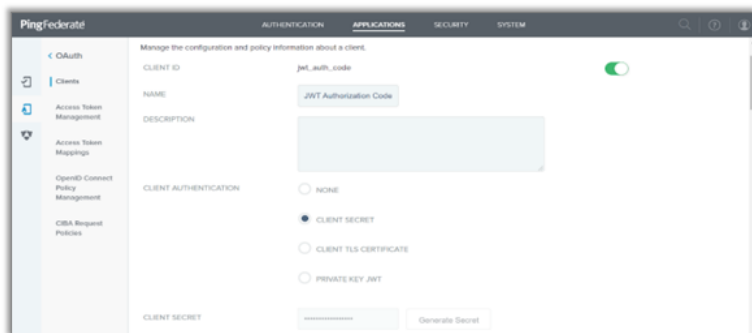
Add the following attributes that need to be returned in the id_token and/or as claims through userinfo endpoint.

- username
- email

The above attributes can be mapped with their respective Scopes in the next page.

For example, **openid scope**.

- Replicate the configurations if PingFederate is configured in a cluster.

**CONFIGURE SSL SERVER CERTIFICATE**

SSL certificates are created as they need to be presented for getting access to the PingFederate administrative console and for all the incoming HTTPS connections at the runtime engine nodes.

If you already own an SSL certificate for pingfederate we can skip to the Key Generation part, else we need to proceed with the following steps to configure a self-signed certificate.

ARTICLE PROPERTIES

Draft

AUTHOR

Likeminds Support

Created on Wed, 13 Dec 2023 at 12:44 AM

LOCATION

Category

Knowledge Base

Visible in: LikeMinds Consulting Inc - Help Desk

Folder

Articles

Visible to: All Users

SEARCH ENGINE OPTIMISATION**TITLE FOR SEARCH ENGINE**

--

DESCRIPTION FOR SEARCH ENGINE

--

ANALYTICS**VERSIONS (53)**

v.53 Current draft
22 Dec 2023, 5:20 AM
EIKsupport LMC

v.52 Draft
22 Dec 2023, 5:12 AM
EIKsupport LMC

v.51 Draft
20 Dec 2023, 10:22 PM
EIKsupport LMC

PingFederate Admin console.

EIK DEPLOYMENT IN PINGFEDEARTE

The following steps should be taken for the deployment of EBS Integration Kit in PingFederate server. As a pre-requisite, the EIKAuth.config configuration file & EIK.dbcx EBS DataSource (DBCX) file should be generated before deploying the EIK war package.

PreRequisite:

An environment variable 'EIK_HOME' should be set in the PingFederate server before deploying the EBS Integration Kit.

- Navigate to <pf_install>/pingfederate directory
- Create a new directory named "EBSAuth". After creation, the directory structure will look like the following <pf_install>/pingfederate/EBSAuth
- Now, Place the EBS IKT license file "ebsauth.lic" in <pf_install>/pingfederate /EBSAuth directory.
- Now navigate to user's base path using cd ~ and set the environmental variable for EIK_HOME in .bash profile : vi .bash_profile
- Set EIK_HOME using this command: export EIK_HOME = <pf_install>/pingfederate
- Save and close the file
- Enter the following command to source the bash file: . /.bash_profile
- Verify the new settings using the following commands, echo \$EIK_HOME

Note: If PingFederate is configured in Cluster, repeat steps 1 to 8 in all the runtime servers.

EIKAUTH CONFIG FILE GENERATION

- The JAR file EIKUtility.jar needs to be placed in the \$EIK_HOME directory created in the previous section.
- Open terminal/command prompt (as Administrator) and navigate to EIK_HOME directory and execute the following command

```
java -cp EIKUtility.jar com.likeminds.EBSAuth.EIKAdminUtility
```

- On running the command, we get a dialog box as follows, enter all values as per the configuration for all the fields using the template given below:

Please enter the following:

ICX Cookie Domain : #.....Confi

ICX Cookie Path : guration Panel.....#

EBS Landing page : icx_cookie_domain = .<domain name> (the

EBS Logout page : " . " Period should preced the root domain

Authentication Server URL : name)

Token Endpoint URL : icx_cookie_path = /

Introspect URL : ebs_landing_page = <EBS Home Page

Redirect URI : URL>

JWKS Validation URL : ebs_logout_page = https://<pf or pa

Grant Type : domain

Auth type : <port>/idp/startSLO.ping

JIT : #OIDC Configuration parameters

Scope : authentication_server_url = https://<pf/pa

Authentication Claim : hostname>:<port>/as/authorization.oauth2

Client ID : token_endpoint_url = https:// <pf/pa

Client Secret : hostname>:<port>/as/token.oauth2

Enter the Context path of WAR : introspect_url = https:// <pf/pa hostname>:

Authentication Attribute = eik_username

(non-editable)

client_id = ***** # CLIENT_ID created

on the PF console

client_secret = *****# CLIENT_SECRET

created on the PF console

OK Cancel

ARTICLE PROPERTIES

Draft

AUTHOR[Likeminds Support](#)

Created on Wed, 13 Dec 2023 at 12:44 AM

LOCATION

Category

[Knowledge Base](#)

Visible in: LikeMinds Consulting Inc - Help Desk

Folder

[Articles](#)

Visible to: All Users

SEARCH ENGINE OPTIMISATION**TITLE FOR SEARCH ENGINE**

--

DESCRIPTION FOR SEARCH ENGINE

--

ANALYTICS**VERSIONS (53)**

v.53 Current draft

22 Dec 2023, 5:20 AM

EIKsupport LMC

v.52 Draft

22 Dec 2023, 5:12 AM

EIKsupport LMC

v.51 Draft

20 Dec 2023, 10:22 PM

EIKsupport LMC

logoPath=https://likemindsconsulting.com/wp-content/uploads/2020/07/logo1.png
helpdeskMessage=<p>
If issue persists, please contact technical

```
<a href="https://support.likemindsconsulting.com">support</a></p>  
/*userinfo_url=https://<pf/pa hostname>:  
<port>/idp/userinfo.openid  
trustStorePath=  
<jdk_location>/lib/security/cacerts  
UsePrivateTrustStore=true  
trustStorePassword=changeit  
fndusr_column_name= USER_NAME  
jwks_connect_timeout=5000 *optional  
  
#.....END.....  
.....#
```

Note: If required, Please Manually add **userinfo_url**, **trustStorePath**, **UsePrivateTrustStore**, **trustStorePassword**, **fndusr_column_name**, **jwks_connect_timeout** parameters in the **EIKAUTH.config** file as mentioned above.

After entering these values in the dialog box, a file named EIKAuth.config gets generated at the EIK_HOME directory.

Now, move the EIKAuth.config file to the following location

<pf_install>/pingfederate/EBSSAuth

Note: If PingFederate is configured in Cluster, copy the EIKAuth.config file to all the runtime servers in the same directory location.

EBS DATA SOURCE (DBCX) FILE CREATION

Before proceeding with the DBCX file generation, a custom user should be created in the EBS Application FND_USER table (Username – EIKUSER) with the UMX|APPS_SCHEMA_CONNECT role enabled.

Place the JAR file EBSdatasource.jar in the \$EIK_HOME directory & open the terminal/command prompt and navigate to EIK_HOME directory to execute and generate the EBS Datasource file

java -cp EBSdatasource.jar com.likeminds.ebsauth.v1.EIKDataSource Y

Note: The jar file can also be placed & executed in any server outside of PingFederate, provided there should be a connectivity to the EBS Database from the execution source

In the next step, provide the configuration details of your environment as mentioned in the screenshot:

```
C:\Users\LIKEMINDS-17\Desktop\Utilities\Utilities_with_Guide>java -cp ebsdatasource.jar com.likeminds.ebsauth.v1.EIKDataSource Y  
12:06:16 AM [main] INFO com.likeminds.ebsauth.v1.EIKDataSource - Name of the DBCX file with path where database configuration will be saved C:\Users\LIKEMINDS-17\Desktop\Utilities\Utilities_with_Guide\eb  
sauth.v1.EIKDataSource Y  
Enter the connection factory class (oracle.jdbc.pool.OracleDataSource)->oracle.jdbc.pool.OracleDataSource  
User entered following value ->oracle.jdbc.pool.OracleDataSource  
Enter the JDBC URL (for eg.) jdbc:oracle:thin:@EBS DB domain name:<EBS DB Port><SID>->jdbc:oracle:thin:@Your EBS DB domain name:<Your EBS DB Port><Your SID>  
User entered following value ->jdbc:oracle:thin:@Your EBS DB domain name:<Your EBS DB Port><Your SID>  
Enter the APPS username->apps  
User entered following value ->apps  
Enter the APPS password->  
Enter connection pool name->EBSAuth  
User entered following value ->EBSAuth  
Enter initial connection pool size->10  
User entered following value ->10  
Enter min. connection pool size->10  
User entered following value ->10  
Enter max. initial pool size->10  
User entered following value ->10  
Enter timeout check interval (Default is 30 secs)->30  
User entered following value ->30  
Enter inactive connection timeout (Default is 0 secs)->0  
User entered following value ->0  
Enter validate connection on borrow (true/false)->true  
User entered following value ->true  
Enter the EIK user scheme->Enter your EIKUSER name:  
User entered following value ->Enter your EIKUSER name:  
Enter the EIK user password->  
User entered following value ->EBSAuth  
User entered following value ->EBSAuth
```

Enter the connection factory class: oracle.jdbc.pool.OracleDataSource

Enter the JDBC URL: jdbc:oracle:thin:@<EBS DB domain name>:<EBS DB Port>:<SID>
(Use Scan hostnames in case of RAC database)

Enter APPS username:

Enter APPS password:

Enter Connection pool name: EBSAuth

Enter initial connection pool size: 10

Enter min. connection pool size: 10

Enter max. initial pool size: 50

Enter timeout check interval(Default is 30 secs): 30

Enter inactive connection timeout (Default is 0 secs): 30

Enter validate connection on borrow (true/false): true

Enter the EIK username: EIKUSER

ARTICLE PROPERTIES

Draft

AUTHOR

Likeminds Support

Created on Wed, 13 Dec 2023 at 12:44 AM

LOCATION

Category

Knowledge Base

Visible in: LikeMinds Consulting Inc - Help Desk

Folder

Articles

Visible to: All Users

SEARCH ENGINE OPTIMISATION

TITLE FOR SEARCH ENGINE

--

DESCRIPTION FOR SEARCH ENGINE

--

ANALYTICS

VERSIONS (53)

v.53 Current draft
22 Dec 2023, 5:20 AM
EIKsupport LMC

v.52 Draft
22 Dec 2023, 5:12 AM
EIKsupport LMC

v.51 Draft
20 Dec 2023, 10:22 PM
EIKsupport LMC

User has been registered successfully

As part of the successful execution, a new file EIK.dbcx will be generated in the EIK_HOME directory.

Now move the EIK.dbcx file to the following location: **<pf_install>/pingfederate/EBSAuth**

Note: If PingFederate is configured in Cluster, copy the EIK.DBCX file to all the runtime servers in the same in the directory location.

DEPLOYING THE LOG4J2.XML FILE

Move the provided log4j2.xml file to the following location: **<pf_install>/pingfederate/EBSAuth**

Note: If PingFederate is configured in Cluster, copy the log4j2.xml file to all the runtime servers in the same directory location.

DEPLOYING THE CACERTS FILE

Move the java cacerts file to the following location: **<pf_install>/pingfederate/EBSAuth**

Note: If PingFederate is configured in Cluster, copy the cacerts file to all the runtime servers in the same directory location.
To add the SSL certificate in the keystore, go to the jdk_location and run the following command in the bin folder.

Windows: keytool -keystore "c:\.cacerts" -importcert -alias aliasname -file "cert_location"

Linux: keytool -import -alias aliasname -keystore <jdk_location>/lib/security/cacerts -file cert_location

DEPLOYING THE SECURITY.PROPERTIES FILE

Move the provided security.properties file to the following location:

<pf_install>/pingfederate/EBSAuth

Note: If PingFederate is configured in Cluster, copy the security.properties file to all the runtime servers in the same directory location.

DEPLOYING EBSAuth.war FILE

- To deploy the EBSAuth.war file in the PingFederate server, navigate to the "deploy" directory in the PingFederate installation directory.
cd /<pf_install>/pingfederate/server/default/deploy
- Now copy and place the EBSAuth.war file in the above deploy directory.

Note: If PingFederate is configured in Cluster, copy the EBSAuth.war file to all the runtime servers.

- Restart the PingFederate runtime servers (on All runtime engine nodes if it is a clustered deployment)

SYSTEM PROFILE PARAMETERS CHANGES IN EBS

The following Oracle EBS System Profile changes will enable SSO by delegating the authentication to PingFederate via EIK.

SYSTEM PROFILE CHANGES

- Login into the EBS Application using the System Admin credentials.
- Locate and change the following EBS system profiles at Site Level for enabling SSO.

i) Application SSO Type	SSWA w/SSO
ii) Application Authenticate Agent	<a href="https://<pf-server_name>:<pf-port>/EBSAuth">https://<pf-server_name>:<pf-port>/EBSAuth
For Example	https://pf-server.net:9031/EBSAuth https://pf-server.net:9031

ARTICLE PROPERTIES

Draft

AUTHOR

[Likeminds Support](#)

Created on Wed, 13 Dec 2023 at 12:44 AM

LOCATION

Category

[Knowledge Base](#)

Visible in: LikeMinds Consulting Inc - Help Desk

Folder

[Articles](#)

Visible to: All Users

SEARCH ENGINE OPTIMISATION

TITLE FOR SEARCH ENGINE

--

DESCRIPTION FOR SEARCH ENGINE

--

ANALYTICS

VERSIONS (53)

v.53 Current draft
22 Dec 2023, 5:20 AM
EIKsupport LMC

v.52 Draft
22 Dec 2023, 5:12 AM
EIKsupport LMC

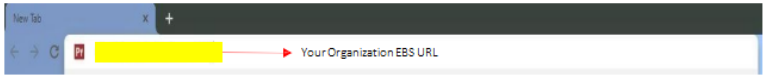
v.51 Draft
20 Dec 2023, 10:22 PM
EIKsupport LMC

iv) Application SSO Auto Link User	Enabled
v) Application SSO LDAP Synchronization	Disabled

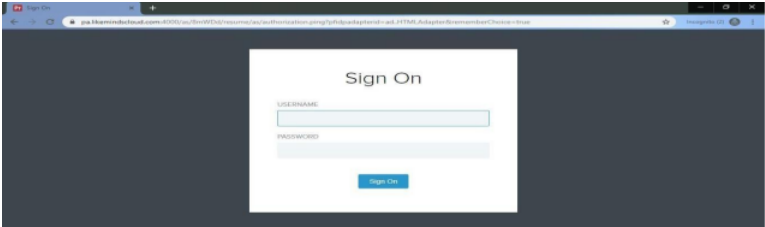
- Restart the EBS Application Server once the changes had been made and this completes the SSO profile parameter changes in Oracle EBS.

SSO TESTING FOR ORACLE EBS

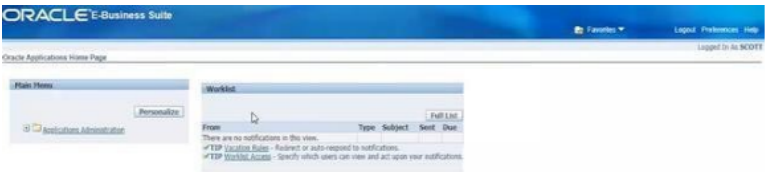
- Enter the URL for SSO of EBS (For Example: <ebs-hostname>:<port>)



- This URL redirects the user to Pingfederate which throws up an authentication prompt for entering the user credentials.



- On successful validation of the user credentials, the user will get access to the EBS Homepage.



Thank you!

About LikeMinds Consulting Inc

LikeMinds consulting is a leading provider of consulting, systems integration and managed services and focuses on Identity Management, Application Security, Governance, Risk and Compliance solutions. We have focused on providing our customers with a full range of services which span through our core beliefs of Advising, Integrating, Maintaining and Accelerating the Complete Identity and Security Solution. For more information, contact us toll-free 1-888-562-3528, email info@likemindsconsulting.com or visit likemindsconsulting.com

ARTICLE PROPERTIES

Draft

AUTHOR

Likeminds Support

Created on Wed, 13 Dec 2023 at 12:44 AM

LOCATION

Category

Knowledge Base

Visible in: LikeMinds Consulting Inc - Help Desk

Folder

Articles

Visible to: All Users

SEARCH ENGINE OPTIMISATION

TITLE FOR SEARCH ENGINE

--

DESCRIPTION FOR SEARCH ENGINE

--

ANALYTICS

VERSIONS (53)

v.53 Current draft
22 Dec 2023, 5:20 AM
EIKsupport LMC

v.52 Draft
22 Dec 2023, 5:12 AM
EIKsupport LMC

v.51 Draft
20 Dec 2023, 10:22 PM
EIKsupport LMC



Visible to: All Users

—

—

v.51 Draft
20 Dec 2023, 10:22 PM
Elksupport LMC