MIFOS PLATFORM 23.12.31 RELEASE

Linux Ubuntu Installation Instructions

Version 1.0

02-January-2024

	INSTALLATION INSTRUCTIONS	
Mifos. Technology for Financial Inclusion	Linux Ubuntu	FINTECHeando

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1. Objective

Provide clear instructions in order to Install the Mifos Platform 22.12.31 Release on a Linux Ubuntu 22.04 LTS Operating System, these instructions should ideally be executed by users with basic technical skills.

2. Target Audience

Username	User description
General Public	User should have basic knowledge about Linux commands.

3. System requirements

Hardware:
- 8Gb RAM
- 2 vCPUs (Intel x86 64bits or AMD x86 64bits)
- 32Gb Storage

Software:
- Linux Ubuntu 22.04 LTS 64 bits Operating System
- Apache Tomcat 10.1
- Java JDK Zulu version 17 LTS
- MariaDB 11.3

4. Deployment Architecture

This is a graphical representation of the components that will be installed, they are highlighted in yellow, and the others put in the graphic as a reference and they can be used for extending the functionality.

Mifos Platform - Big Picture
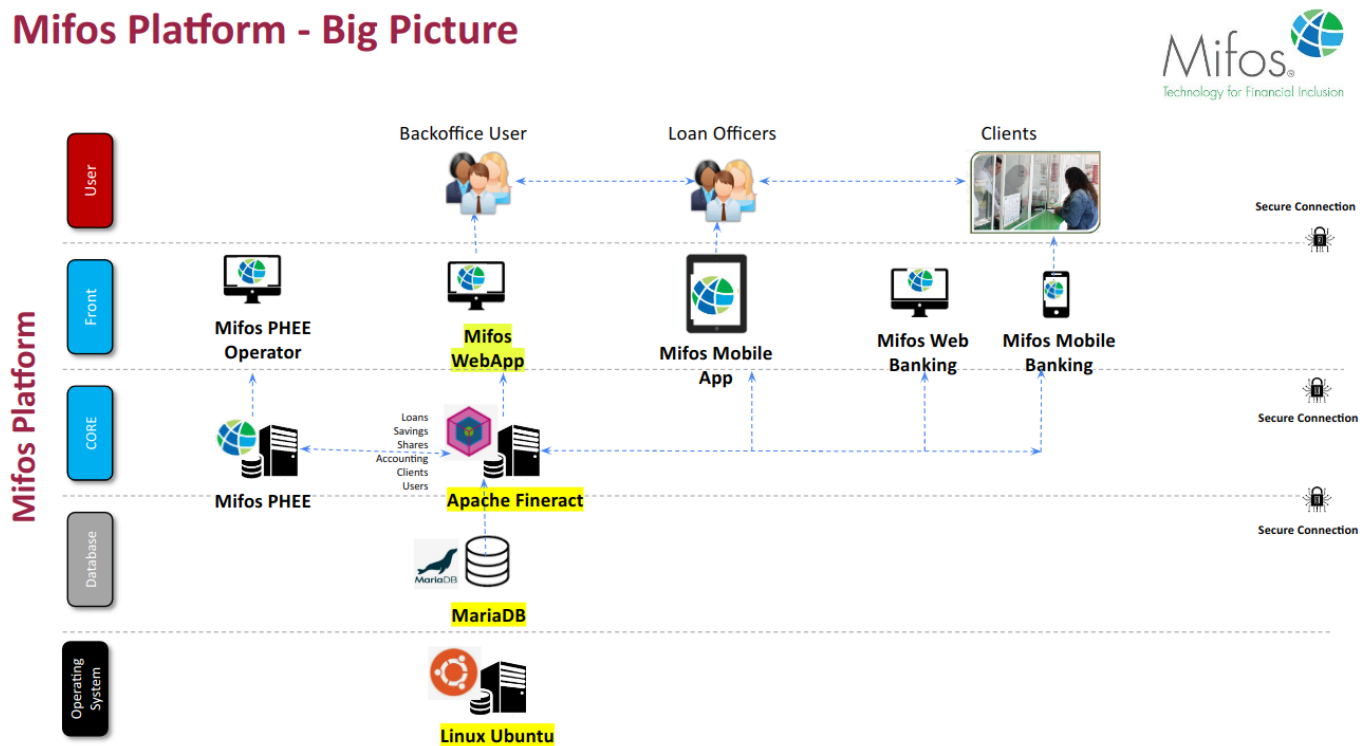
5. Instructions

The following commands must be verified in a text plain editor before being executed.

a. Install Java Zulu JDK 17
sudo apt install gnupg ca-certificates curl
curl -s https://repos.azul.com/azul-repo.key | sudo gpg --dearmor -o /usr/share/keyrings/azul.gpg
echo "deb [signed-by=/usr/share/keyrings/azul.gpg] https://repos.azul.com/zulu/deb stable main" | sudo tee /etc/apt/sources.list.d/zulu.list
sudo apt update
sudo apt install zulu17-jdk
java -version

b. Get the Apache Tomcat version 10.1 which is the Application Server required to run Mifos X 23.12-RELEASE
wget https://dlcdn.apache.org/tomcat/tomcat-10/v10.1.17/bin/apache-tomcat-10.1.17.zip

c. Unzip the file in a folder
unzip apache-tomcat-10.1.17.zip

d. Delete the ROOT default content
rm -Rf ./apache-tomcat-10.1.17/webapps/ROOT/*

e. Copy the Mifos WebApp which will be used as the backoffice
cp -Rf ./webapp/* ./apache-tomcat-10.1.17/webapps/ROOT

f. Copy the Apache Fineract binary
cp fineract-provider.war ./apache-tomcat-10.1.17/webapps/

g. Install MariaDB Database server
sudo apt update
sudo apt install mariadb-server

h. Secure the installation setting a password for the root user
sudo mysql_secure_installation

i. Connect to MariaDB in order to create the two databases required by Apache Fineract
mysql -u root -p
CREATE database `fineract_tenants` CHARACTER SET utf8mb4 COLLATE utf8mb4_unicode_ci;
CREATE database `fineract_default` CHARACTER SET utf8mb4 COLLATE utf8mb4_unicode_ci;
exit

j. Export the environment variables required by Apache Fineract in order to use the root password that was set in the step "h", also we are disabling the SSL because this is a demonstration. **We encourage you to use the secure connection by enabling HTTPS.**

export FINERACT_DEFAULT_TENANTDB_PWD=skdcnwauicn2ucnaecasdsajdnizucawencascdca
export FINERACT_HIKARI_PASSWORD=skdcnwauicn2ucnaecasdsajdnizucawencascdca
export FINERACT_SERVER_SSL_ENABLED=false
export FINERACT_SERVER_PORT=8080

k. Run the command for executing the Apache Tomcat
./catalina.sh run

l. Open the Mifos X 23.12 User Interface on a web browser
http://localhost:8080

The credentials for login:
user: mifos
password: password

6. Document versions

Version	Date	Subject	Author	Reviewer
1.0	December 31st 2023	Document creation	Victor Romero	Juan Karlos Hernandez