PAPSS-Middleware-Installer

Redhat Linux Installation

Run following commands

Install the PostgreSQL Software

```
Open the distribution .repo file in vi:

sudo vi /etc/yum.repos.d/CentOS-Base.repo

Exclude PostgreSQL by appending the following line to both the [base] and
[updates] sections:

exclude=postgresql*

Download and install the PGDG file from postgresql.org:

sudo yum -y install
https://download.postgresql.org/pub/repos/yum/reporpms/EL-7-x86_64/pgdg-
redhat-repo-latest.noarch.rpm

Install PostgreSQL 12:

sudo yum install -y postgresql12-server postgresql12-contrib
```

Initialize the Database

```
Initialize the database:

sudo /usr/pgsql-12/bin/postgresql-12-setup initdb

Start and enable the postgresql-12 service:

sudo systemctl start postgresql-12
sudo systemctl enable postgresql-12
```

Install Unzip package

```
sudo yum -y install unzip
```

Install Java Software

```
sudo yum -y install java-17-openjdk
```

Create PAPSS Middleware directory and cd to it

```
sudo mkdir -m777 -p /var/papss
cd /var/papss
```

Get PAPSS Artifacts from GitHub

```
sudo curl -O -J -L https://github.com/PapssAfrica/PAPSS-Client-
Installer/archive/refs/heads/main.zip
```

Unzip files

```
sudo unzip PAPSS-Client-Installer-main.zip -d . && sudo rm PAPSS-Client-
Installer-main.zip
sudo mv PAPSS-Client-Installer-main/* . && sudo rm -r PAPSS-Client-
Installer-main
```

Run PAPSS Installation Script

```
sudo chmod u+x linux/papss-linux-installer.sh && ./linux/papss-linux-
installer.sh
```

Installing PAPSS Configuration Service as a systemd Service

With the PAPSS-Configuration-Service-1.0.jar Spring Boot application installed in /var/papss/lib, to install it as a systemd service, create a script named papssconfig.service and place it in /etc/systemd/system directory.

```
vi /etc/systemd/system/papssconfig.service
```

Copy and past the following to the `vi` terminal :

```
[Unit]
Description=PAPSS Configuration Service
After=syslog.target
```

```
[Service]
User=papss
Type=simple
Restart=on-failure
RestartSec=10
WorkingDirectory=/var/papss/lib
ExecStart=/bin/java -Xms1024m -Xmx2048m -jar PAPSS-Configuration-Service-
1.0.jar --spring.cloud.config.server.native.search-
locations=file:///var/papss/config
SuccessExitStatus=143

[Install]
WantedBy=multi-user.target
```

Enable the papssconfig.service

```
systemctl enable papssconfig.service
```

Start the papssconfig.service

```
systemctl start papssconfig.service
```

Check status of the papssconfig.service

```
systemctl status papssconfig.service
```

Validate Configuration Service is running

```
curl -u root:s3cr3t --request GET http://localhost:8888/papss-outbound-
iso-service/native
```

Installing PAPSS Outbound ISO Service as a systemd Service

With the PAPSS-Outbound-ISO-Service-1.0.jar Spring Boot application installed in /var/papss/lib, to install it as a systemd service, create a script named papssoutbound.service and place it in /etc/systemd/system directory.

```
vi /etc/systemd/system/papssoutbound.service
```

Copy and past the following to the `vi` terminal :

```
[Unit]
Description=PAPSS Outbound ISO Service
After=syslog.target

[Service]
User=papss
Type=simple
Restart=on-failure
RestartSec=10
WorkingDirectory=/var/papss/lib
ExecStart=/bin/java -Xms1024m -Xmx2048m -jar PAPSS-Outbound-ISO-Service-
1.0.jar
SuccessExitStatus=143

[Install]
WantedBy=multi-user.target
```

Enable the papssoutbound.service

```
systemctl enable papssoutbound.service
```

Start the papssoutbound.service

```
systemctl start papssoutbound.service
```

Check status of the papssoutbound.service

```
systemctl status papssoutbound.service
```

Validate PAPSS Outbound ISO Service is running

```
curl --location 'http://localhost:8881/papss/api/participantlist' \
--header 'Content-Type: application/json' \
--data '{
    "sender": {
        "inst_id":"NG2020"
    },
    "inst_id":"NG2020",
    "participant_type" : "BANK",
```

```
    "isOnline" : true
}'
```

Installing PAPSS Inbound ISO Service as a systemd Service

With the PAPSS-Inbound-ISO-Service-1.0.jar Spring Boot application installed in /var/papss/lib, to install it as a systemd service, create a script named papssinbound.service and place it in /etc/systemd/system directory.

```
vi /etc/systemd/system/papssinbound.service
```

Copy and past the following to the `vi` terminal :

```
[Unit]
Description=PAPSS Inbound ISO Service
After=syslog.target

[Service]
User=papss
Type=simple
Restart=on-failure
RestartSec=10
WorkingDirectory=/var/papss/lib
ExecStart=/bin/java -Xms1024m -Xmx2048m -jar PAPSS-Inbound-ISO-Service-
1.0.jar
SuccessExitStatus=143

[Install]
WantedBy=multi-user.target
```

Enable the papssinbound.service

```
systemctl enable papssinbound.service
```

Start the papssinbound.service

```
systemctl start papssinbound.service
```

Check status of the papssinbound.service

```
systemctl status papssinbound.service
```

Validate PAPSS Inbound ISO Service is running

```
curl --location 'http://localhost:8881/papss/api/participantlist' \
--header 'Content-Type: application/json' \
--data '{
    "sender": {
        "inst_id":"NG2020"
    },
    "inst_id":"NG2020",
    "participant_type" : "BANK",
    "isOnline" : true
}'
```

Systemd Service Debug Commands

Reset failed:

```
systemctl reset-failed
```

Reload Daemon:

```
systemctl daemon-reload
```

Windows Server 2019 Installation

Install Java Open JDK 17

Installing OpenJDK with the MSI installer This procedure describes how to install OpenJDK 20 for Windows using the MSI-based installer.

Procedure

1. Download the MSI-based installer of OpenJDK 20 for Windows. https://adoptium.net/download/
2. Run the installer for OpenJDK 20 for Windows.
3. Click Next on the welcome screen.
4. Check I accept the terms in license agreement, then click Next.
5. Click Next.
6. Accept the defaults or review the optional properties.
7. Click Install.
8. Click Yes on the Do you want to allow this app to make changes on your device?.
9. Verify the OpenJDK 20 for Windows is successfully installed, run `java -version` command in the command prompt and you must get the following output:

```
        openjdk version "17" 2021-09-14 LTS
        OpenJDK Runtime Environment 21.9 (build 17+35-LTS)
        OpenJDK 64-Bit Server VM 21.9 (build 17+35-LTS, mixed mode, sharing)
```

Tutorial https://www.theserverside.com/blog/Coffee-Talk-Java-News-Stories-and-Opinions/How-do-I-install-Java-on-Windows

Set PAPSS_HOME environment variable

Add Environment variable in System Properties

Screenshot 2023-07-24 at 17 37 45

Confirm PAPSS_HOME variable was added successfully

Screenshot 2023-07-24 at 17 38 24

Confirm on Poweshell Command

```
  Get-ChildItem -Path Env:
```

Install and Start the Services

Run the following commands on Powershell

Install PAPSS-Configuration-Service

```
  ./PAPSS-Configuration-Service.exe install
```

Start PAPSS-Configuration-Service

```
  ./PAPSS-Configuration-Service.exe start
```

Install PAPSS-Inbound-ISO-Service

```
  ./PAPSS-Inbound-ISO-Service.exe install
```

Start PAPSS-Inbound-ISO-Service

```
  ./PAPSS-Inbound-ISO-Service.exe start
```

Install PAPSS-Outbound-ISO-Service

```
./PAPSS-Outbound-ISO-Service.exe install
```

Start PAPSS-Outbound-ISO-Service

```
./PAPSS-Outbound-ISO-Service.exe start
```

The following commands can be used for daily operation and maintainance of the PAPSS REST API Middleware by applying them to the the .EXE binaries as shown above:

Command	Description
install	Installs the service.
uninstall	Uninstalls the service.
start	Starts the service.
stop	Stops the service.
restart	Stops and then starts the service.
status	Checks the status of the service.
refresh	Refreshes the service properties without reinstallation.
customize	Customizes the wrapper executable.