SOP: Interoperability Layer IL ver 4.0.0

Last update: July 2023

Objective: This SOP provides instruction on how to install and configure IL on a KenyaEMR instance running on Ubuntu Operating System to share data with other systems
Tasks: Undertake procedures required to accomplish the following; • Install IL application • Set global properties for IL application • Configure participating systems
Who: System administrator/HRIO
Requirements: Working KenyaEMR instance (ver 18.6.X)

INTEROPERABILITY LAYER CONFIGURATIONS FOR KENYAEMR

The following are instruction on how to install and configure IL on a KenyaEMR instance using Ubuntu as the Operating System. The provided procedures also include configurations for IL end points on IL application, which can be configured after successful installation.

SECTION 1: PREPARATORY EVENTS PROCEDURE:

1. **Delete Liquibase for Charts and IL entries.**

   Log into MySQL and select openmrs as the default database then run the following scripts:

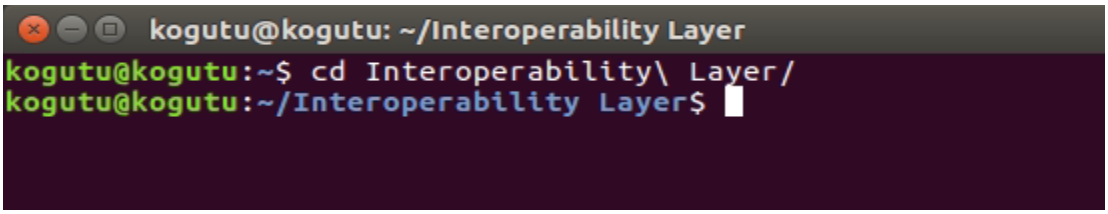
```
delete from liquibasechangelog where id like 'kenyaemrCharts%';
delete from liquibasechangelog where id like 'kenyaemrIL%';
exit (to exit mysql)
```

SECTION 2: IL INSTALLATION

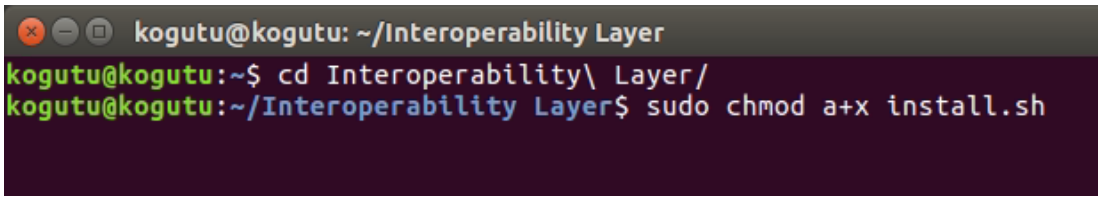
1. **Install IL**

   Open the terminal

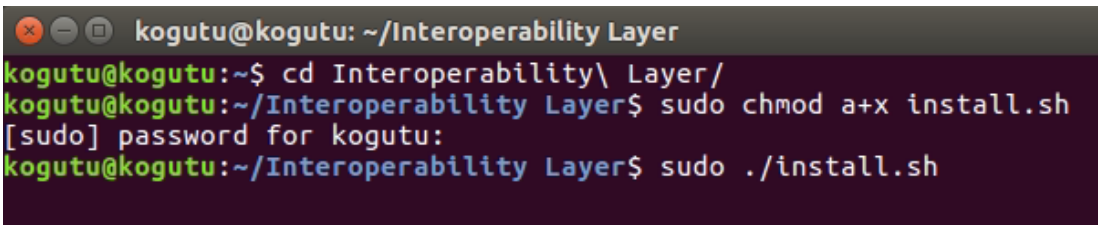
   Change directory to IL installer folder and run the following scripts.



- *sudo chmod a+x install.sh*



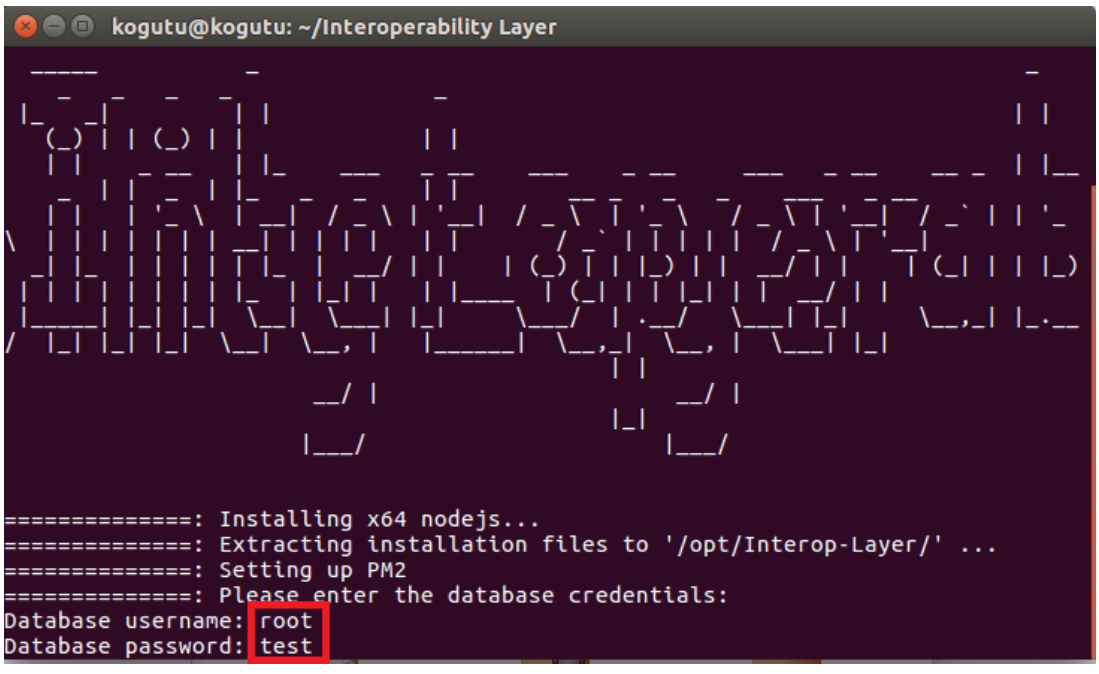
- *sudo ./install.sh*



When prompted for MySQL username and password type the following:

username*:root* **password***:test*

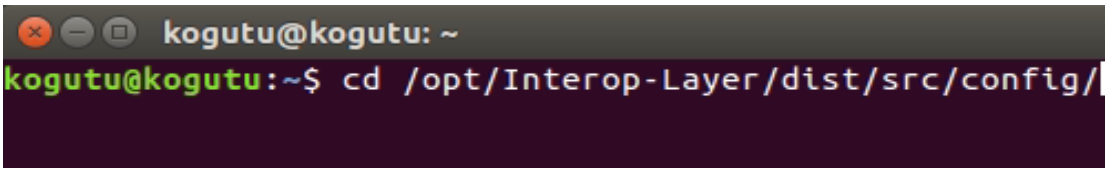
NB: Under password input your mysql password in this case the password is test)



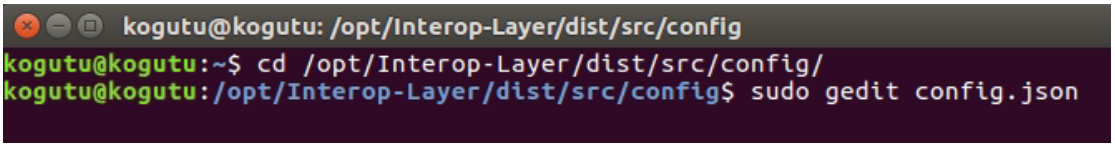
2. Edit **config.json** file and update **mysql username** and **password** as shown. Note that the username or the password may be different from the one shown above.

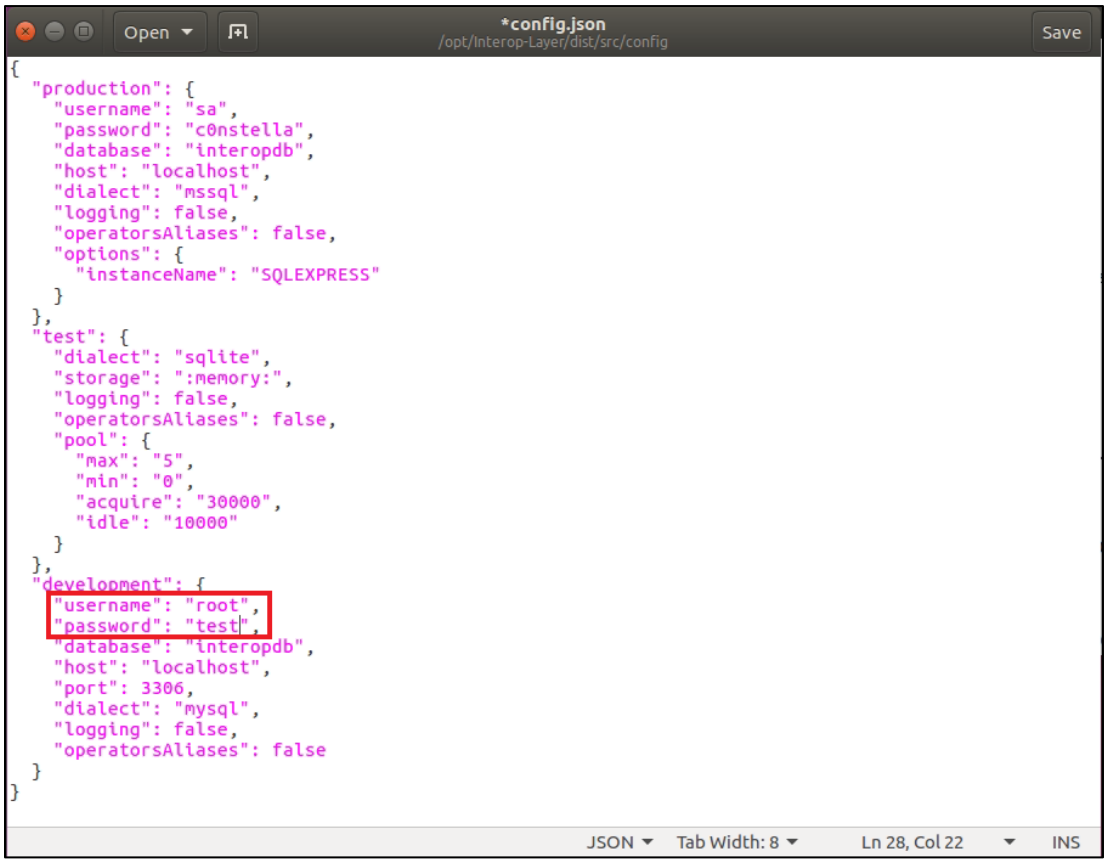
On the terminal type the following.

- *cd /opt/Interop-Layer/dist/src/config* (**press ENTER**)



- *sudo gedit config.json* (**press ENTER**)
-





Note: enter the correct MySQL username and password; save and close:

Remember, MySQL username or password may be different from the one shown in the figure above. Use the correct credentials for your instance.

Restart IL: *`sudo pm2 reload all --update-env`*

3. Update global properties:

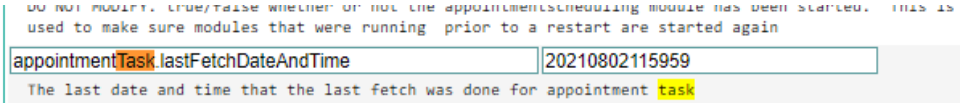
Log into KenyaEMR as admin

Navigate to the developer tab. Then to legacy admin UI.

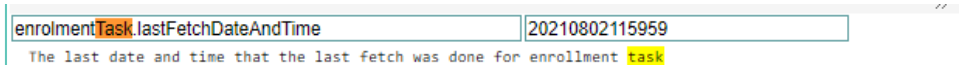
Look for the maintenance part where you will see advanced settings.

Once in the advanced settings, search for the following and fill.

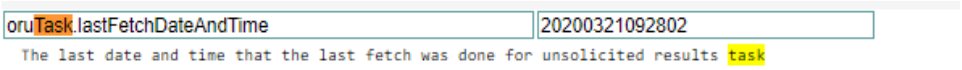
- *`ilServer.address : http://localHostIP:9721/api/` (Replace "localHostIP" with the correct IP address of the machine hosting IL instance)*
- *Appointment task last fetch date and time and set the date value to today's date. The correct format is: year/month/day/hour/min/sec*



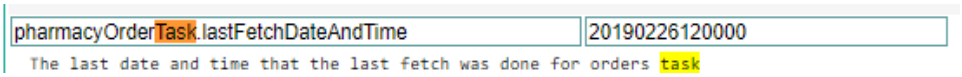
- *Enrollment task last fetch date and time and set the date value to today's date. The correct format is: year/month/day/hour/min/sec*



- *ORU task last fetch date and time and set the date value to today's date. The correct format is: year/month/day/hour/min/sec*



- *Pharmacy Order task last fetch date and time and set the date value to today's date. The correct format is: year/month/day/hour/min/sec*



- *Viral Load task last fetch date and time and set the date value to today's date. The correct format is: year/month/day/hour/min/sec*

Also search for; **facility.mflcode** : **facility MFL code** if it is not there then Scroll to the bottom of the page and click on **add property**.

Two rectangular text boxes will appear.

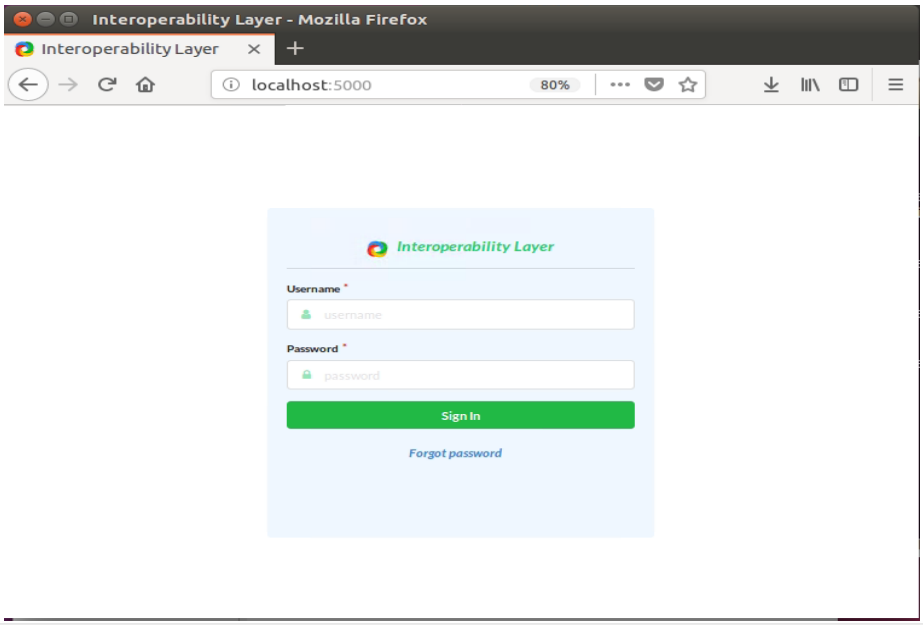
On the text box that is on your left type in **facility.mflcode** and on the right enter the MFL code.

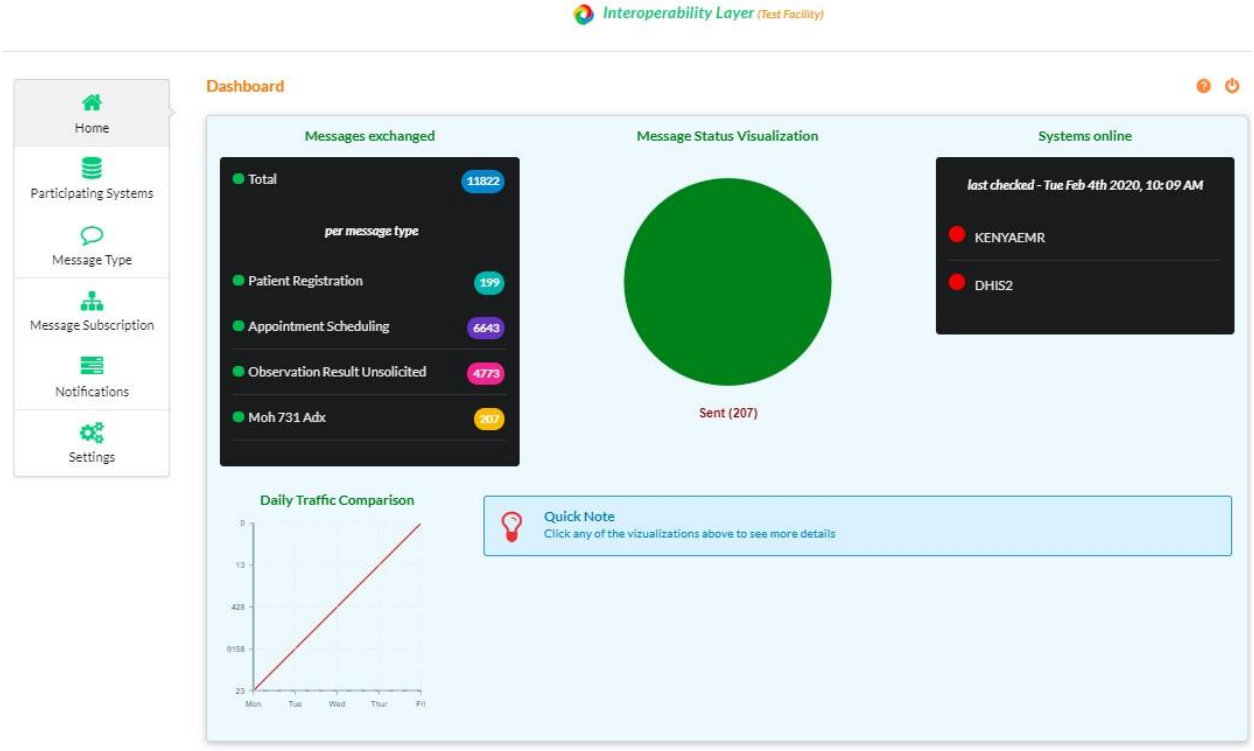
Save and go back to the administration tab.

NB: Navigate to browser and type **localhost:5000** and log into the interoperability layer with the following credentials.

Username: ***admin***

password: ***admin***





In case your web page does not display similar to above and appears somewhat distorted or squeezed to one side of the screen then you will need to update your Mozilla Firefox to the latest version using the following steps;

- Close all running instances of Mozilla Firefox browser
- Open terminal and run the following.
- `sudo add-apt-repository ppa:ubuntu-mozilla-security/ppa`
- `sudo apt-get update`
- `sudo apt-get install firefox`

Note: You will need internet to update Mozilla

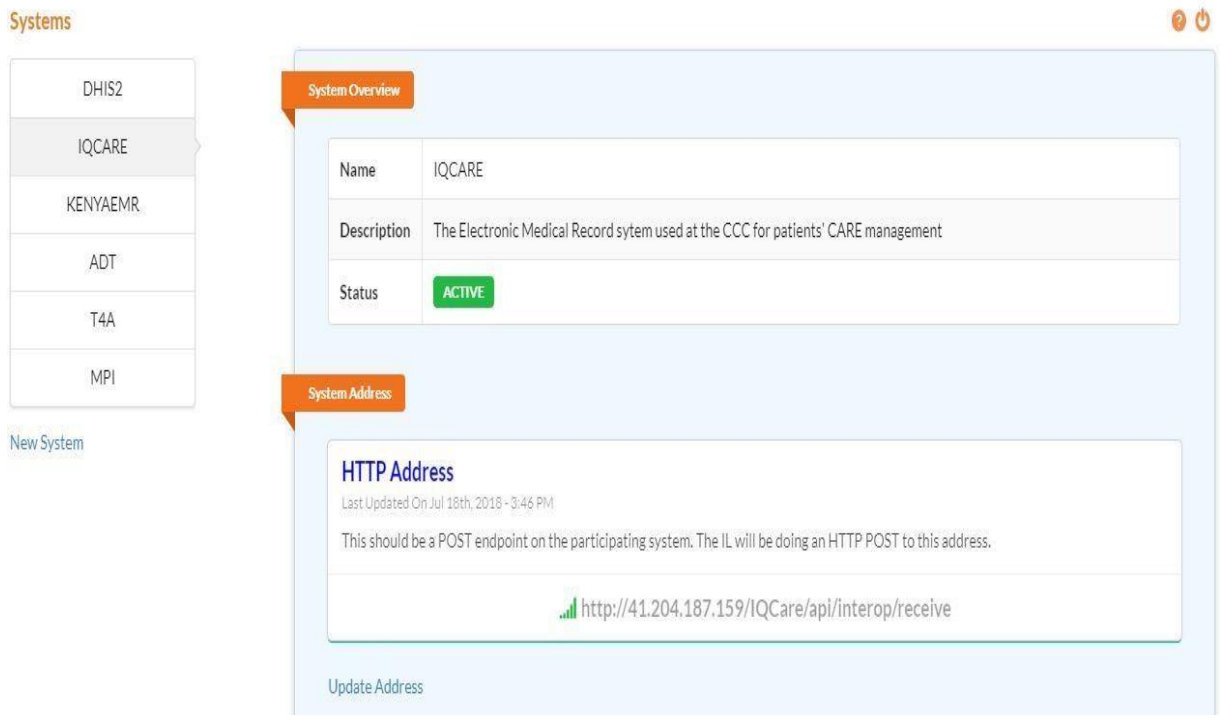
Troubleshooting IL

- Check the status of IL service: *sudo pm2 list:*
- Check last 100 lines of the IL logs: *sudo pm2 logs --lines 100*
- Restart IL service: *sudo pm2 reload all --update-env*

SECTION 3: IL PARTICIPATING SYSTEMS SETUP:

The following procedures are to be performed right after successful installation of IL.

- On the main menu, click on **Participating Systems** link
- Update the address(es) of the participating systems present in the facility, which you'd like to include in the exchange, by clicking the ***Update Address*** link, and putting in the address



Please see below the default addresses for each system. Only update the address for the systems in this facility:

Participating System	Address	Notes
KenyaEMR	`http://[localhost]:8080/openmrs/ws/rest/v1/interop/processhl7il`	[localhost] = IP address of KenyaEMR Server
ADT	`http://[localhost]:88/ADT/tools/api`	[localhost]=IP address of the ADT Server
T4A	`http://[localhost]:1440/hl7_mes sage`	[localhost]=IP address of the T4A server

The IL provides a settings page to use a reference for address locations of the IL APIs and Portal, DHIS 2 User credentials, IL Admin Password.

THE END