

SOP: IQCare to KenyaEMR system migration

Data Validation/ Verification

Last reviewed: Jun 2020

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|----------------------------|--|
| Tasks: | Perform data Validation & Verification during migration from IQCare to KenyaEMR system |
| Objective: | To maintain data integrity before, during and after migration. |
| Who: | KenyaHMIS/ Service Delivery Partners/ MoH/ Facilities |
| Required Materials: | Functional IQCare System, Working KenyaEMR environment, Migration toolkit, Backup disk, Internet |

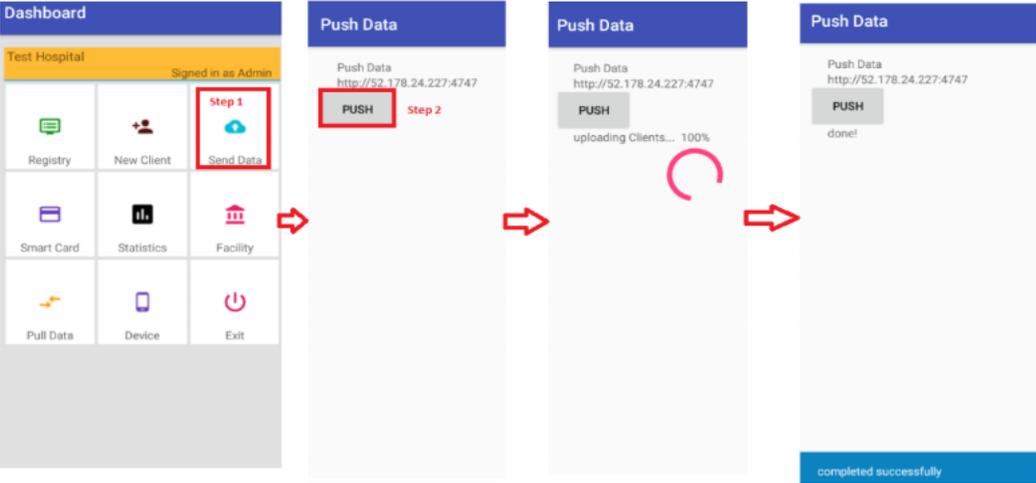
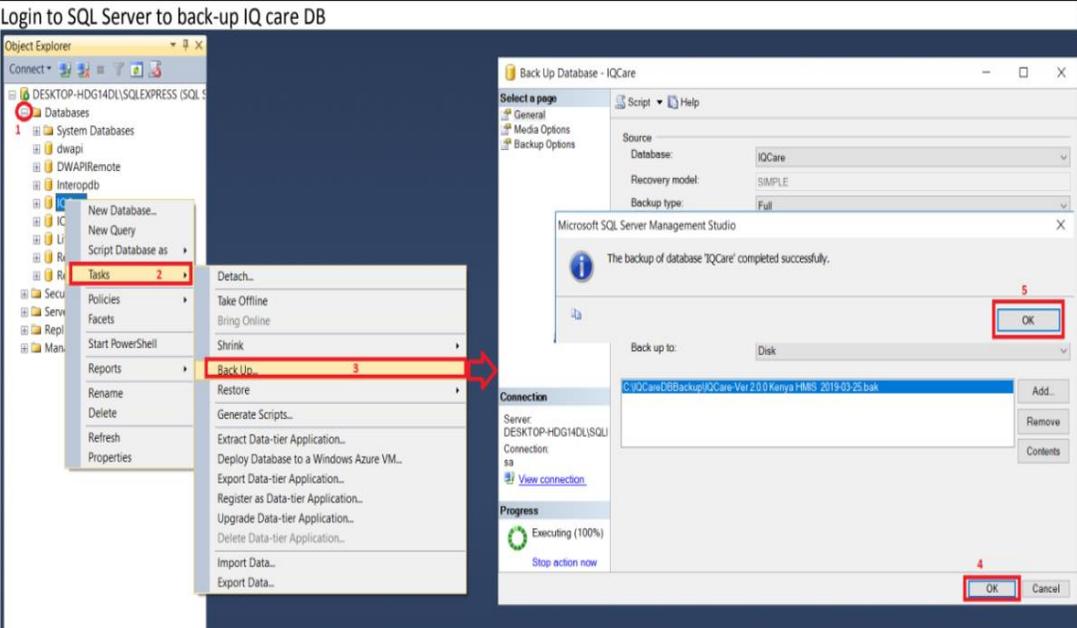
Overview:

This document outlines data validation procedure during IQCare to KenyaEMR migration validation SOP. The process has been categorized into three distinct phases i.e. Pre-migration, Migration and Post migration phase. The instructions are accompanied by relevant screenshots for clarity where applicable. Links have been provided for external resources as reference.

Migration validation summary

1. IQCare database backup
2. LiveHAPI Database backup
3. Verify IQCare version
4. Sync all eHTS data
5. Upgrade DWAPI version to 2.4.8.2
6. Refresh IQTools database
7. Extract relevant reports
8. Setup migration PDI
9. Perform the migration
10. Perform post migration data validation/ Verification
10. Document results and take appropriate action

SECTION 1: PRE-MIGRATION PHASE

| STEP | SCREENSHOT |
|--|--|
| <p>Step 1.1: Sync all data from Afya Mobile</p> <p>This procedure applies to facilities that are implementing eHTS (Afya Mobile).</p> <ul style="list-style-type: none"> - Ensure data from all the tablets/ mobile devices are uploaded to the server. - Navigate Afya mobile dashboard - Tap on the “Send Data” - Tap on “PUSH” on the next screen - Wait for the data to upload and you get “Successful” feedback. | <p>Pushing clients data to the registry</p>  |
| <p>Step 1.2.0: IQCare Database Backup</p> <p>Login into SQL server</p> <ol style="list-style-type: none"> Expand databases Right click on IQ Care folder and move cursor to tasks Click on backup link Click OK button to start backing up notice progress Click OK button on the successful backup prompt <p>NB: Obtain the backup from the indicated path and save in an external drive for additional caution.</p> | <p>Login to SQL Server to back-up IQ care DB</p>  |

Step 1.2.1: LiveHAPI Database Backup

Login into SQL server

- i. Expand databases
- ii. Right click on LiveHAPI folder and move cursor to tasks
- iii. Click on backup link
- iv. Click OK button to start backing up notice progress
- v. Click OK button on the successful backup prompt

NB: Obtain the backup from the indicated path and save in a n external drive for additional caution.

Step 1.3: Verify IQCare version

- Launch IQCare page and check for the version as shown.
- The migration version should be v2.2.1 Patch 2

NB: If the version is lower, you need to upgrade IQCare. Obtain the upgrade package from [here](#).

Refer to IQCare upgrade SOP from this [link](#).

Government of Kenya
Ministry of Health

International Quality Care
IQCare Patient Management and Monitoring System

03-Jun-2020

IQCARE AUTHENTICATION

Username
username

Password

Preferred Location

Facility/Satellite
0-13747-0-MADIANY SUB COUNTY HOSPITAL

Login

Palladium
MAKE IT POSSIBLE

CC BY-NC-SA

Help

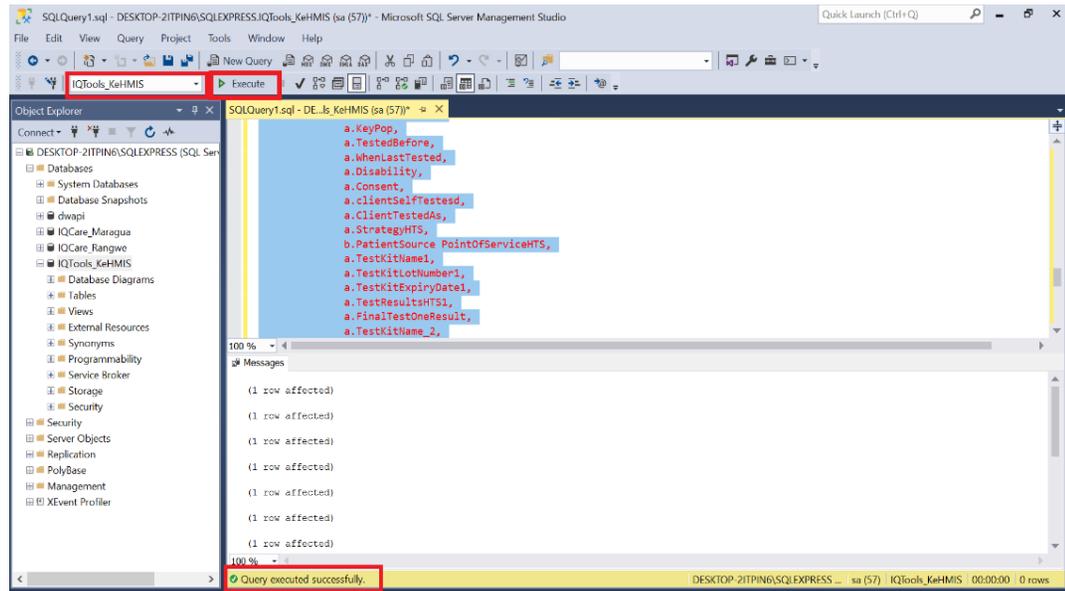
Version :Kenya HMIS Ver 2.2.1 Patch 2 | Release Date :12-Mar-2020

Step 1.4: Update IQTools for migration

Obtain IQTools update script from [here](#)

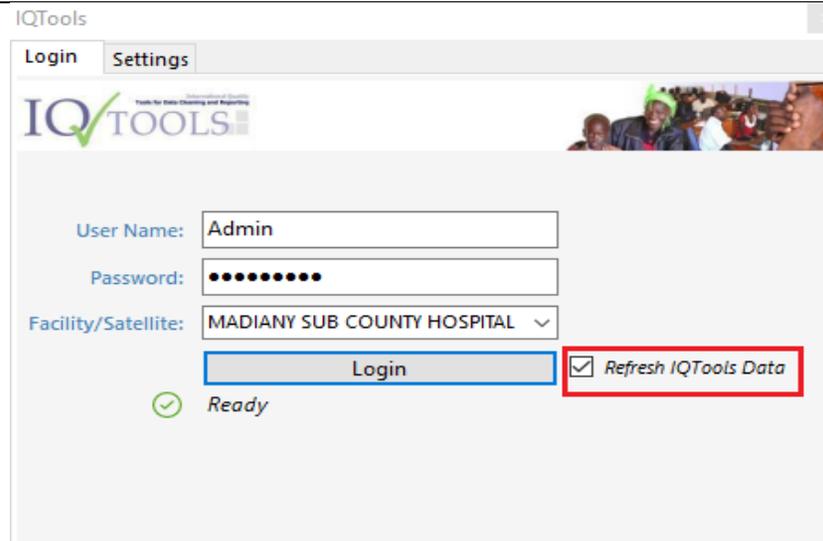
| Assets | |
|--|---------|
| IQCare - KenyaEMR.Release.Notes.June.05.2020.version.1.1.0.pdf | 88 KB |
| IQTools.Update.before.Migration.sql | 4.67 KB |
| kenyaemr17.1.0_migration_package-v1.1.0.zip | 168 MB |
| transformations-v1.1.0.zip | 464 KB |
| Source code (zip) | |
| Source code (tar.gz) | |

- Open SQL server management studio (MSSMS)
- Open new query
- Execute the script against IQTools database



Step 1.4: Refresh IQTools

- Launch IQTools and enter the correct login credentials
- Remember to check “Refresh IQTools Data” before you click “Login
- Wait for the refresh to complete and IQTools landing page launches.



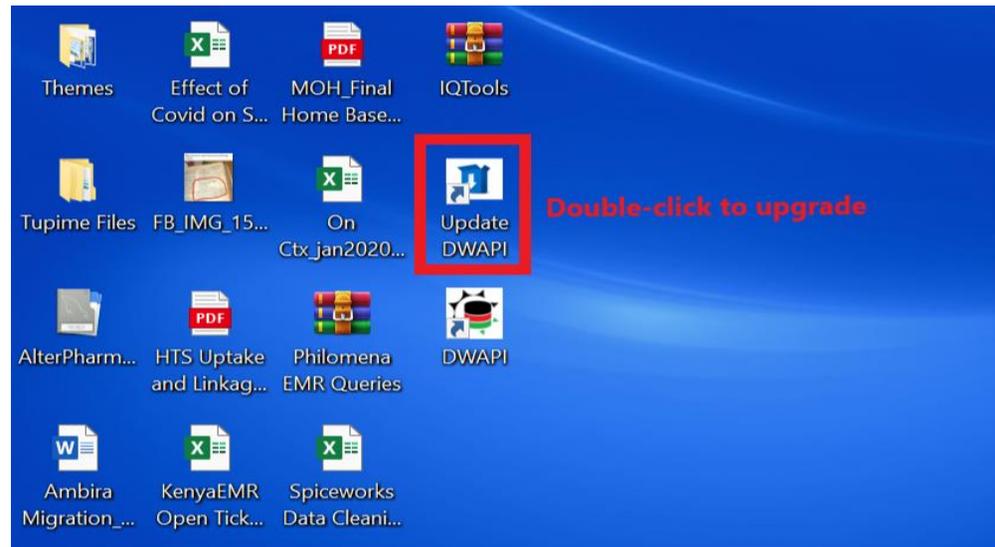
Step 1.4: Upgrade DWAPI version

It is imperative to upgrade DWAPI before uploading data to DWH. The valid migration DWAPI version is 2.4..8.2.

- Clear browser cache
- Locate “upgrade DWAPI” icon on the desktop and double click. This requires internet connectivity.
- Go through the process of upgrade till the end

Alternatively.

You can download the latest DWAPI version from [here](#) and install.



Step 1.5: Generate reports

Generate the following reports:

- MoH 731
- ART register
- HTS Lab register
- DATIM
- Any other report deemed important for validation.

NB: The reports should be stored safely for verification purposes after migration. An extra copy of the reports should be saved in an external drive for future reference.

Step 1.6: Upload data to DWH using DWAPI tool

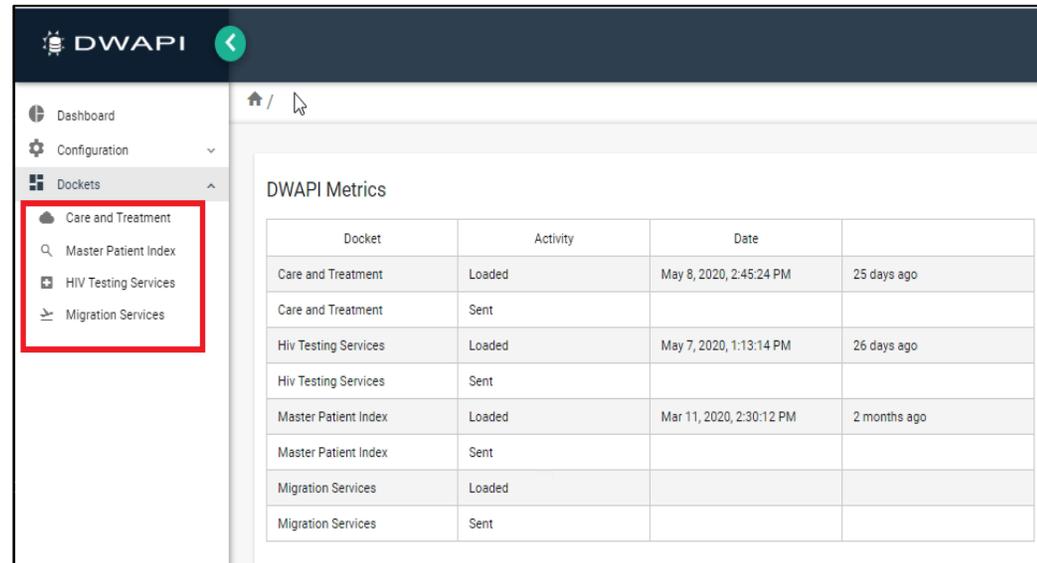
Upload all the four docket in DWAPI tool i.e.

- MPI
- C&T
- HTS
- Migration

NB: Refer to the [DWAPI data upload SOP](#) on how to upload data using the tool

Once you upload data via the DWAPI, you can then check your uploads from this migration instance:

<https://spotstaging.kenyahmis.org/#/migration/>



The screenshot shows the DWAPI web application interface. On the left, there is a navigation menu with the following items: Dashboard, Configuration, Dockets, Care and Treatment, Master Patient Index, HIV Testing Services, and Migration Services. The 'Dockets' menu is expanded, and the 'Care and Treatment' item is highlighted with a red box. The main content area displays the 'DWAPI Metrics' table, which lists the upload activities for each docket.

| Docket | Activity | Date | |
|----------------------|----------|--------------------------|--------------|
| Care and Treatment | Loaded | May 8, 2020, 2:45:24 PM | 25 days ago |
| Care and Treatment | Sent | | |
| Hiv Testing Services | Loaded | May 7, 2020, 1:13:14 PM | 26 days ago |
| Hiv Testing Services | Sent | | |
| Master Patient Index | Loaded | Mar 11, 2020, 2:30:12 PM | 2 months ago |
| Master Patient Index | Sent | | |
| Migration Services | Loaded | | |
| Migration Services | Sent | | |

SECTION 2: MIGRATION

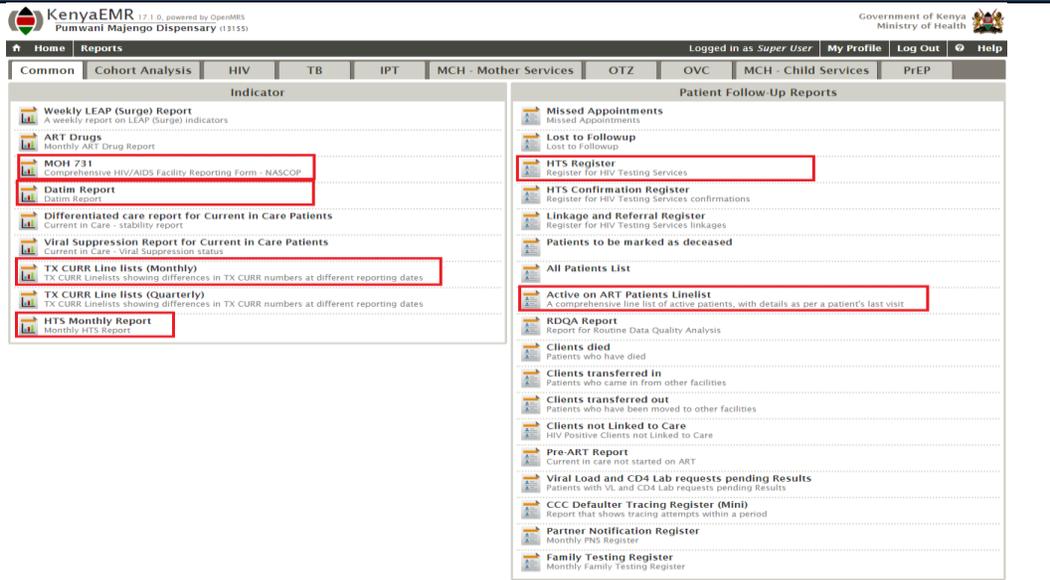
Refer to IQCare – KenyaEMR migration Technical SOP [here](#) for guidance on migration environment setup and process.

SECTION 3: POST-MIGRATION PHASE

Assumptions in this phase:

1. PDI is setup and data transformation completed successfully.
2. KenyaEMR is setup and data importation completed successfully
3. Default facility set in KenyaEMR
4. ETL tables refreshed successfully

NB: Refer to IQCare- KenyaEMR migration technical SOP [here](#) for details on migration environment setup

| STEP | SCREENSHOT |
|--|---|
| <p>Step 2.1: Generate reports from KenyaEMR</p> <p>Generate the following reports from KenyaEMR</p> <ol style="list-style-type: none"> i. MoH 731 ii. ART register iii. HTS Lab register iv. DATIM v. Any other report deemed important for validation. <p>NB: The reports should be stored safely for verification purposes after migration. An extra copy of the reports should be saved in an external drive for future reference.</p> |  |

Step 2.2: Set up DWAPI (for KenyaEMR)

Refer to the DWAPI setup SOP on how to install DWAPI for Ubuntu here.

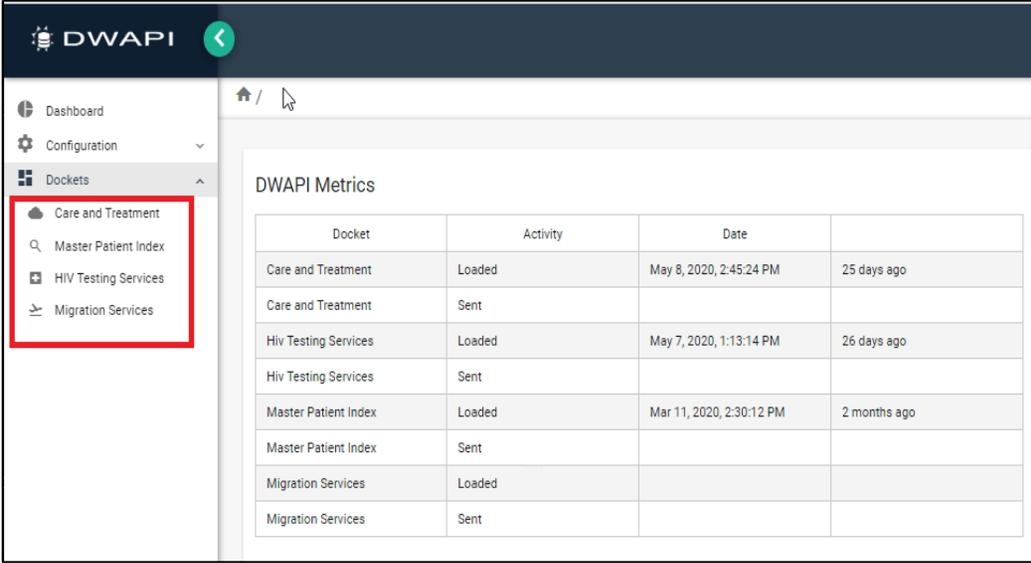
- [Using Docker \(on Ubuntu Server\)](#)
- [MySQL Configurations for DWAPI \(Ubuntu\)](#)
- [Using Windows](#)

Once successfully set up, upload the following docket to DWH

- MPI
- C&T
- HTS
- Migration

Once you upload data via the DWAPI, you can then check your uploads from this migration instance:

<https://spotstaging.kenyahmis.org/#/migration/>



The screenshot shows the DWAPI web interface. The sidebar menu on the left includes: Dashboard, Configuration, Dockets, Care and Treatment, Master Patient Index, HIV Testing Services, and Migration Services. The 'Care and Treatment' item is highlighted with a red box. The main content area displays a table titled 'DWAPI Metrics' with the following data:

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| Migration Services | Loaded | | |
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Step 2.3: Carry out data verification/ validation

- Compare reports from IQCare to the reports generated from KenyaEMR and document finding in the Migration Testing Feedback template provided [here](#).
- Where indicators from both systems are not matching, Use the compare tool [here](#) to compare and identify records missing in either of the systems and drill down to specific records for causes leading to the variance

Step 2.4: Take Action

Based on data validation and verification results from step 2.3 above, various actions can potentially be taken as follows:

- Proceed with migration and conduct data quality improvements on KenyaEMR platform
- Undertake data corrections at the source (IQCare) platform then redo the migration
- Where error is encountered during validation process, contact palladium service desk for support.

At this point you can also go to the Data Warehouse and verify your uploads.