

**Theme:** Shanghai library FOLIO project

**Time:** January 18, 2022 07:00pm (EST) / January 19, 2022 08:00am (GMT+8)

**Attendees:**

Vincent Bureau (Enterprise Architect, EBSCO)

Gang Zhou (Project manager, Shanghai library)

Sha Jiang (Technical Director, Jiata)

Lucy Liu (Product Owner, Folio China)

**Notes:**

**1. We will upgrade to Kiwi. Do you have any suggestions on this topic? (Sha Jiang)**

**Vince:** Typically the process that you would use for something like that is to create a duplicate system that you have run in parallel for the new version. You probably have to shut Folio down for some time. Take a backup and restore it to the duplicate machine. Perform your upgrade on that. Then you test it for satisfaction. And when you can switch the traffic to the new system, shut down the traffic to the old system. That's the typical process used by the community and by EBSCO.

**Sha Jiang:** Can we just upgrade part of the system like Okapi, mod-user, etc. and keep the old version of the business modules?

**Vince:**

- I don't recommend that because Folio has not been tested that way. So you don't know if the compatibility is fully tested between the new version and the old version.
- You probably will have problems because there are dependencies between the different components and modules of folio.
- You might be able to upgrade Okapi separately because it's so essential. But that's really the only exception.

**2. We want to capture some trend data in the loan table and transfer some loan data to other systems, for example, to capture the trends of the data going between check-in/check-out and the middleware systems. Any solution? (Gang Zhou)**

**Vince:** There's a module called mod-audit, which is responsible for creating all the trails on circulation.

**Gang Zhou:** Yes. We already checked the loan table. It was so big. In general, we have around four million active loans. It's not stable to capture the trend data.

**Vince:** It seems that you have a scale problem that was not a consideration for the original Folio. Is the capturing of data a problem or the reporting of the data a problem?

**Gang Zhou:** The loan table is so big that we can't get the data in a short time even if we create some indexes.

**Vince:**

- This is a new problem that no one else has.

- Yes. An index will slow it down because it has to recalculate every time a new loan is created.
- One thing you may look at is the alternative storage mechanisms. Maybe look at other options than Postgres for the audit trail. And make sure you are checking on the audit table, not directly on the loan tables.
- There are specialized databases you can get a time series databases that are a very good at capturing data and reporting on them. Influxdb is an example. Prometheus is another one.
- You have to develop it by yourself and try different databases underneath. Find a database that you don't need to worry about reindexing and something like that. This is not a problem that the community has encountered yet.

### **3. Is EBSCO using another data pool to manage data? (Sha Jiang)**

**Sha Jiang:** I remember a discussion of a data pool from a few years ago.

**Vince:** We had two modules which were created at a time. One was called mod-aes (asynchronous event service). It was used to capture raw data, basically listen to Okapi transactions, capture the data and store it in a data lake. You would point to the data lake, process the data into a data warehouse and do reporting. We had a proof of concept: it showed how you could create a loan and see it in real time in the reports. But the reporting SIG decided to go in a different direction, so it was abandoned at this point.