inBloom – *Environment Specification*

Release 1.11.86

October 3, 2013

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# Purpose

This document is intended to provide operations with information necessary to update from a previous release to a current release in the inBloom™ Production and Sandbox environments.

This document provides minimum deployment footprints for this release, as well as an estimated footprint necessary for 5M students, and the Sandbox developer environment.

This document assumes deployment and growth within an Amazon AWS environment.

# Migration Scripts

The sections that follow include instructions for running migration scripts when updating to this version.

## Release 1.10.85 Migration Fix Script

The migration script for 1.10.85 had the potential to corrupt parentEducationAgencyReferences in the educationOrganization collection if run multiple times.  This script fixes any corrupted references and addresses localEducationAgencyReferences that may not have been handled by the original 1.10.85 script.

This script performs the following steps:

* Flattens the parentEducationAgencyReference array
* Moves localEducationAgencyReference to parentEducationAgencyReference array if it is not already present and then removes the obsolete localEducationAgencyReference..

The script can be re-run.

This script **MUST** be run before the Application Enablement and Application Authorization migration script below.

Location: sli/sli/opstools/migration/85\_migrate\_fix.rb

Usage: To fix educationOrganization collection, give argument(s) as follows:

            --all                                 Fix all tenant dbs

            --OR--

           <tenant1> [<tenant2> ...]           Fix only database(s) in the list

           myhost:myport                          Optional hostname and port defaults to localhost:27017

           For example:

           ruby opstools/migration/85\_migrate\_fix.rb  --all mongo\_host:mongo\_port

           ruby opstools/migration/85\_migrate\_fix.rb <tenant1> [<tenant2> ...]  mongo\_host:mongo\_port

## Application Enablement and Application Authorization Migration Script

A migration script is provided to update the "body.authorized\_ed\_orgs" field in the sli.application collection and "body.edorgs" field in the <tenant>.applicationAuthorization collection from the pre-1.11.86 release format to the 1.11.86 release format.

This script performs the following steps:

* Before any update operation, do data sanity check.
  1. - Scan the educationOrganization collection of each tenant, if there is more than one SEA, or no SEA in the presence of other edOrgs, abort without update.  If no edOrgs, print a message and skip the tenant;
  2. - Scan the applicationAuthorization collection of each tenant, if "body.edorgs" array of an applicationAuthorization record has an applicationId which has no reference to any application record in sli.application collection, print a warning, but retain it;
  3. - Scan the applicationAuthorization collection, if two applicationAuthorization documents have the same body.applicationId, consolidate into one applicationAuthorization doc with all associated edOrgs, give a warning msg and continue.
* Update <tenant>.applicationAuthorization collection for each tenant, if the application is a bulk extract application, then update "body.edorgs" array with an array consisting of an SEA and all its immediate children; if the application is a non-bulk extract application, then update "body.edorgs" with an array of all the educationOrganizations in <tenant>.educationOrganization collection.
* Update the sli.application collection, compute a set of all the involved tenants based on the original "body.authorized\_ed\_orgs" array.  If the application is a bulk extract application, then update "body.authorized\_ed\_orgs" array with an array consisting of SEA and all its immediate children for all the involved tenants; if the application is a non-bulk extract application, update the  "body.authorized\_ed\_orgs" array with an array of all the education organizations  in <tenant>.educationOrganization collection for all the involved tenants.  If an edorg id in the "body.authorized\_ed\_orgs" array has no reference to an edorg in the <tenant>.educationOrganization collection, print a warning, but retain it in the "body.authorized\_ed\_orgs" array.

The script can be re-run.

Location: sli/sli/opstools/migration/86\_application\_enablement\_authorization\_migration.rb

Usage: To migrate educationOrganization collection, no argument(s) are needed.

ruby opstools/migration/86\_application\_enablement\_authorization\_migration.rb

## Sandbox migration script to add Context Rights to all Roles

A migration script for Sandbox is provided to add a Context Right to each Role. The script will add the TEACHER\_CONTEXT right to all roles with a group name of Teacher or Educator. All other roles will have a STAFF\_CONTEXT right added. If the role contains a Student or Parent based Right, no Context Right will be added.

This script performs the following steps:

* Connects to the sli database and gets a list of all databases from the tenant collection
* For each tenant it updates the custom role collection to add a TEACHER CONTEXT or STAFF\_CONTEXT right
* If the Context Right already exists for that Role, it will not update the Role.

Location of the script:

sli/sli/opstools/migration/83\_context\_right\_migration/sandbox\_migrate\_context\_rights.rb

Usage: ruby sandbox\_migrate\_default\_roles.rb <host>:<port> <sli\_database\_name>

    <host> is the hostname for the mongo instance

    <port> is the port mongo is running on

    The argument <sli\_database\_name> is optional. If not provided it defaults to 'sli'

## Production migration script to add Context Rights to Default Roles

A migration script for Production is provided to add a Context Right to each Default Role (Educator, IT Administrator, Leader, Aggregate Viewer). The script will add the TEACHER\_CONTEXT right to the Educator role, and the STAFF\_CONTEXT to the IT Administrator, Leader, Aggregate Viewer roles.  If the role contains a Student or Parent based Right, no Context Right will be added.

This script performs the following steps:

* Connects to the sli database and gets a list of all databases from the tenant collection
* For each tenant it updates the custom role collection to add a TEACHER CONTEXT or STAFF\_CONTEXT right
* If the Context Right already exists for that Role, it will not update the Role.

Location of the script:

sli/sli/opstools/migration/83\_context\_right\_migration/production\_migrate\_context\_rights.rb

Usage: ruby production\_migrate\_default\_roles.rb <host>:<port> <sli\_database\_name>

    <host> is the hostname for the mongo instance

    <port> is the port mongo is running on

    The argument <sli\_database\_name> is optional. If not provided it defaults to 'sli'

# Infrastructure Configuration Changes

## MongoDB (Data Store Layer)

No changes.

## Ingestion

Each section of ingestion requirements covers one service or application that is part of the ingestion system.

### Landing Zones

No changes.

### GlusterFS

No changes.

### ActiveMQ

No changes.

### Ingestion servers

No changes.

## Portal

No changes.

## API

No changes.

## Data Browser

No changes.

## Admin Tools

No changes.

## Simple IDP

No changes.

## Search

No changes.

# Suggested Base Configuration Changes

The configuration examples provided below detail a running system.  Email addresses and URLs that are imbedded in the configuration should be validated prior to go-live.

## sli.properties

No changes.

## Portal Application sli.properties

No changes.

## portal-ext.properties

No changes.

## Admin config.yml

No changes.

## Data browser config.yml

No changes.

## Apache Tomcat

No changes.

## ActiveMQ

No changes.