

Third-Party Integration with Synergy: Setup Guide (Rostrering only)

About this User Guide:

This guide is intended to provide the steps that need to be taken within Synergy to make the “Rostrering” endpoints available (using the OneRoster (1.1) standard) for the Third-Party Application(s) your district may be using.



Grade Pass Back endpoints are not considered/included in this setup.

Background:

What is [OneRoster](#)?

- OneRoster is the standard specification for securely sharing class rosters and related data between a SIS and third-party applications.
- [OneRoster 1.1](#) is the current standard

Synergy and OneRoster:

- While OneRoster provides standards for transferring data via CSV extracts or the OneRoster API, **this integration is just for the API.**
- Synergy provides data, directly from the SIS, as required by the OneRoster specifications
 - Synergy utilizes Views to efficiently make the data available
- **“Rostrering” Endpoints made available by Synergy:**
 - Orgs (Organizations)
 - Schools
 - Terms
 - Grading Periods
 - Demographics
 - Students
 - Teachers
 - Users (only students and teachers)
 - Courses
 - Classes
 - Enrollments

****Once the configuration in Synergy is complete, the rest of the work will be on the third-party vendor to get connect to the API and pull the data you’ve made available to them.****



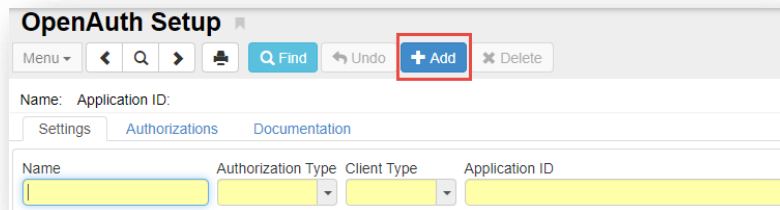
We recommend having a Synergy Test/Train site configured, for the Third-Party App your district is partnering with, to point a TEST environment to before setting up a Production environment. *Your district will need to work with your Third-Party App partner to setup a TEST environment on their side.

Synergy Setup:

****BEFORE YOU BEGIN:** Make sure you've deployed the OneRoster License Key. If you are hosted by Edupoint, you can reach out to Tech Services to deploy your License Key. If you do not have the OneRoster License Key, put a ticket into the Help Desk or contact your Account Manager**

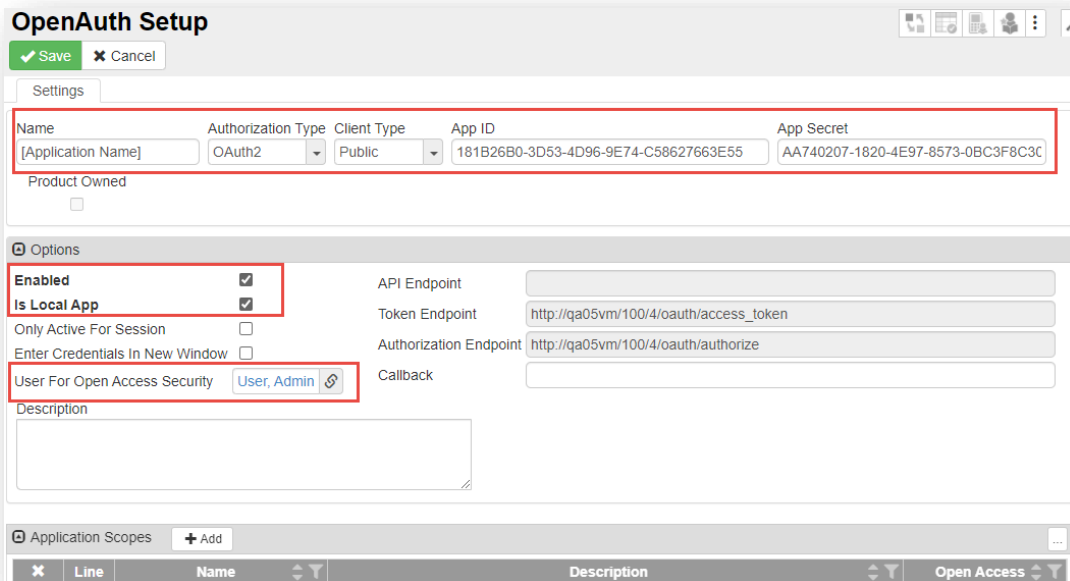
1. Complete the OpenAuth Setup

- Navigate to **OpenAuth Setup** screen (Synergy SIS > System > Setup)
- Select Add+



The screenshot shows the 'OpenAuth Setup' interface. At the top, there is a menu bar with 'Menu', navigation arrows, a search box labeled 'Find', and buttons for 'Undo', '+ Add', and 'Delete'. Below the menu, there is a 'Name: Application ID:' field. Underneath, there are tabs for 'Settings', 'Authorizations', and 'Documentation'. A table with columns 'Name', 'Authorization Type', 'Client Type', and 'Application ID' is visible, with a yellow highlight under the 'Name' column.

- Complete all fields as shown below and "Save".



The screenshot shows the 'OpenAuth Setup' interface with the 'Save' button highlighted. The 'Settings' section includes fields for 'Name' (with a placeholder '[Application Name]'), 'Authorization Type' (set to 'OAuth2'), 'Client Type' (set to 'Public'), 'App ID' (181B26B0-3D53-4D96-9E74-C58627663E55), and 'App Secret' (AA740207-1820-4E97-8573-0BC3F8C3C). Below this is a 'Product Owned' checkbox. The 'Options' section includes 'Enabled' (checked), 'Is Local App' (checked), 'Only Active For Session' (unchecked), 'Enter Credentials In New Window' (unchecked), 'User For Open Access Security' (set to 'User, Admin'), 'API Endpoint', 'Token Endpoint' (http://qa05vm/100/4/oauth/access_token), 'Authorization Endpoint' (http://qa05vm/100/4/oauth/authorize), and 'Callback'. A 'Description' text area is also present. At the bottom, there is an 'Application Scopes' section with an '+ Add' button and a table with columns 'Line', 'Name', 'Description', and 'Open Access'.

- App ID** = Generate a GUID (<https://www.guidgenerator.com/>)
- App Secret** = Generate a GUID (<https://www.guidgenerator.com/>)
- User for Open Access Security** = can be any Synergy User

1. This user will be listed in Audit Trails
 2. This user should have access to Grade Book Admin Login button
- iv. **Token Endpoint** = will be prepopulated based on your Synergy URL
 - v. **Authorization Endpoint** = will be prepopulated based on your Synergy URL
 - vi. **Application Scopes** = check with third-party vendor to see if they require scopes
 1. If **not required** – you don't need to add anything
 2. If **required**:
 - a. Set `BOOL_ONEROSTER_BYBASS_OAUTHSCOPES` = 'False'
 - b. add any/all of the scopes below (depending on what the third-party vendor requires) to the "Name" field and check the "Open Access" checkbox
- **<https://purl.msglobal.org/spec/or/v1p1/scope/roster-core.readonly>** -
 - enables access to the `getAcademicSession`, `getClass`, `getCourse`, `getEnrollment`, `getGradingPeriod`, `getOrg`, `getSchool`, `getStudent`, `getTeacher`, `getUser`, `getAllAcademicSessions`, `getAllClasses`, `getAllCourses`, `getAllEnrollments`, `getAllGradingPeriods`, `getAllOrgs`, `getAllSchools`, `getAllStudents`, `getAllTeachers` and `getAllUsers` rostering endpoints
 - **<https://purl.msglobal.org/spec/or/v1p1/scope/roster.readonly>** -
 - enables access to ALL of the rostering endpoints EXCEPT `getDemographic` and `getDemographics`
 - **<https://purl.msglobal.org/spec/or/v1p1/scope/roster-demographics.readonly>** -
 - enables access to the `getDemographics` and `getAllDemographics` rostering endpoints
 - **<https://purl.msglobal.org/spec/or/v1p1/scope/resource.readonly>** -
 - enables access to the `getResource`, `getAllResources`, `getResourcesForClass` and `getResourcesForCourse` resources endpoints
 - **<https://purl.msglobal.org/spec/or/v1p1/scope/gradebook.readonly>** -
 - enables access to the `getCategory`, `getAllCategories`, `getLineItem`, `getAllLineItems`, `getResult`, `getAllResults`, `getLineItemsForClass`, `getResultsForClass`, `getResultsForLineItemForClass` and `getResultsForStudentForClass` gradebook endpoints
 - **<https://purl.msglobal.org/spec/or/v1p1/scope/gradebook.createput>** -
 - enable access to the `putCategory`, `putLineItem` and `putResult` gradebook endpoints
 - **<https://purl.msglobal.org/spec/or/v1p1/scope/gradebook.delete>** -
 - enables access to the `deleteCategory`, `deleteLineItem` and `deleteResult` gradebook endpoints

*If the Token/Authorization Endpoints do NOT show 'https', the following change needs to be made to the load balancer. (This is the most likely change needed to be made, but can vary by site)



Advanced Properties

Content Switching Disabled **Enable**

HTTP Selection Rules **Show Selection Rules**

HTTP Header Modifications **Show Header Rules**

Response Body Modification **Show Body Modification Rules**

Enable HTTP/2 Stack

Enable Caching

Enable Compression

Detect Malicious Requests

Add Header to Request X-Forwarded-Proto :HTTPS **Set Header**

Copy Header in Request To Header **Set Headers**

Add HTTP Headers Legacy Operation(X-Forwarded-For) ▾

"Sorry" Server Port **Set Server Address**

2. Include Schools to Sync

- a. Navigate to **Synergy SIS > System > Setup > Organization**
- b. Select School from tree that you wish to make available to Third-Party App
- c. Check the box to **"Include this Organization in OneRoster"**
- d. **Save**
 - i. Repeat b-d (above) for all schools to include in sync

Organization

Menu

Edupoint School District

- ▶ 1. Elementary Schools
- ▶ 2. Middle Schools
- ▶ 3. High Schools
 - Hope High School
 - Kennedy High School

Default Email Address

Live in Synergy

Include this Organization in OneRoster

Hide Organization From General Use

3. Sync Current School Year(s):

- a. Navigate to Synergy **SIS > Grade Book > Setup > Grade Book Config**
- b. Scroll to the bottom of the screen to the **"OneRoster School Years to Sync"** section
- c. Only select the current school year from the dropdown list
 - i. **NOTE:** A Summer School extension can be included along with a regular year during overlapping windows and for future year purposes.
 1. Select **+ Add** to add an additional row and select the appropriate school year from the dropdown list.
 - ii. **NOTE:** New school years will be available in list following the first *Grade Book District Mass Synchronization* for any school

4. Schedule OneRoster Data Cache job:

- a. Navigate to the **Class Roster Integration Process** screen (Synergy SIS > Grade Book)
- b. Select **“OneRoster Data Cache”** from Roster Type dropdown list
- c. Enter/Select a Run Job Time
 - i. **NOTE:** Schedule the job to run nightly, after the scheduled Grade Book District Mass Synchronization and before the Third-Party Application’s sync process
 1. Consult with Third-Party App to find out their sync process
- d. Select **“Schedule Job”**
 - i. This process is shown in the Job Q Adm Viewer with **“One Roster Data Cache”** Job ID

Class Roster Integration Process

Roster Type

OneRoster Data Cache

Schedule Job

One Roster Data Cache: Next job is scheduled: 04/08/2021 13:44:00

Run Job Time

1:00 AM

Schedule Job

5. Provide Information to the Third-Party App: (information needed varies by App)

- a. **App ID**
- b. **App Secret**
- c. **Token Endpoint**
 - i. Not needed by all vendors
- d. **SIS Domain (Synergy URL)**
 - i. **“/ims/oneroster/v1p1”** may need to be added to the end of the URL

OpenAuth Setup

Name: D2L App ID 944ECAF1-FA1C-4B19-9F0A-BC9BFF7CDD6E

Settings Authorizations Documentation

Name	Authorization Type	Client Type	App ID	App Secret	Product Owned
D2L	OAuth2	Public	944ECAF1-FA1C-4B19-9F0A-BC9BFF7CDD6E	1E02A7FB7ADA4CF8824673D2D94A08	<input type="checkbox"/>

Options

Enabled

Is Local App

Only Active For Session

Enter Credentials In New Window

User For Open Access Security

Description

API Endpoint

Token Endpoint

Authorization Endpoint

Callback

OneRoster Config Values to Consider:

OneRoster Config Values:	Added By:	Default Value:	Description:
INT_ONEROSTER_VERSION	Call to getSchool	2	Synergy version of OneRoster being used (should be set to "2")
BOOL_ONEROSTER_BYBASS_OAUTHSCOPES	Call to getSchool	TRUE	TRUE =Synergy won't expect scopes to be included in calls made to API from vendor FALSE =scopes expected in calls made to API
BOOL_ONEROSTER_GUID_AS_EXTERNALID	Call to getStudent	TRUE	TRUE =GUID will be used as SOURCEDID FALSE = Synergy ID (SIS#/Badge#) will be used as SOURCEDID
BOOL_ONEROSTER_INCLUDE_DEPARTMENTS	Call to getSchool	FALSE	TRUE =includes departments in the ORG and SCHOOL endpoint (department list comes from Lookup Table Definition > K12.CourseInfo > Department) FALSE =departments will not be included in ORG/SCHOOL endpoints
BOOL_ONEROSTER_USE_SCHOOLYEARCOURSEGU	Call to getCoursesForSchool	TRUE	TRUE =SOURCEDID will be set to the SCHOOL_YEAR_COURSE_GU from the EPC_SCH_YR_CRS table FALSE = SOURCEDID will be set to the COURSE_GU from EPC_CRS table
BOOL_ONEROSTER_SECTIONID_AS_CLASSCODE	Call to getClassesForSchool	FALSE	TRUE =ClassCode will be set to the ID from EGB_CLASS table in Synergy (so that each code is unique) FALSE =ClassCode will be set to the SECTION ID of the Class (may not be unique across your district; varies by district)
BOOL_ONEROSTER_USE_SOURCEDID_AS_IDENTIFIER	Call to getUsers	TRUE	TRUE =Identifier will be the same as the SOURCEDID; FALSE =Identifier will be GUID
BOOL_ONEROSTER_INCLUDE_SYNCLASSES	call to getClassesForTeachers or getClassesForStudents	FALSE	TRUE =All Synergy Sections will be made available on the API FALSE =only sections sync'd into Synergy Grade Book (included in Grading) will be made available on the API
INT_ONEROSTER_KEEP_DATACACHE_DAYS	Running the OneRoster Data Cache Process	14	Amount of days the OneRoster cached data will remain in the data cache tables until deleted. Prevents tables from getting too big.

Using UD views to replace Synergy default views

If you do not want to use the default views that we make available on the API, you're able to create UD Views and insert your UD View into the EGB_ONEROSTER_UD_VIEWS table to override the default Views.

NOTES:

- Any UD Views you create to replace a default view must still return all of the columns from the original default view
- Review the [OneRoster 1.1 specifications](#)

```
--After you've created UD View
--Add the ID of the view type you want to override
--Add the name of your UD View
--Then run this script to insert UD View into egb_oneroster_ud_views
--Your UD View will then be used in place of the view ID you've indicated to override
INSERT INTO rev.egb_oneroster_ud_views
    (id,
     oneroster_ud_view_type_id,
     oneroster_ud_view_name,
     dateadded)
VALUES ((SELECT Isnull(Max(id), 0) + 1
        FROM rev.egb_oneroster_ud_views),
        , --add ID of the view you want to override from EGB_ONEROSTER_UD_VIEW_TYPES
        ',--enter the name of the UD View
        Getdate());
```

OneRoster Database Tables and Views

OneRoster Database Tables:	OneRoster Database Views:
EGB_ONEROSTER_DC	EGB_V_ONEROSTER_ACADEMIC_S
EGB_ONEROSTER_DC_CLASSES	EGB_V_ONEROSTER_CATEGORY_ALL
EGB_ONEROSTER_DC_CLS_GRADES	EGB_V_ONEROSTER_CATEGORY_ID
EGB_ONEROSTER_DC_ENROLLS	EGB_V_ONEROSTER_CLASS_STUDENTS
EGB_ONEROSTER_DC_USERS	EGB_V_ONEROSTER_CLASSES_GRADES
EGB_ONEROSTER_DC_USERS_AGT	EGB_V_ONEROSTER_CLASSES_NOSYN
EGB_ONEROSTER_DC_USERS_SCH	EGB_V_ONEROSTER_CLASSES_SYN
EGB_ONEROSTER_EVENTLOG	EGB_V_ONEROSTER_CLASSES_TCH
EGB_ONEROSTER_RECALC_LOG	EGB_V_ONEROSTER_CLASSES_TCH
EGB_ONEROSTER_RECALC_Q	EGB_V_ONEROSTER_CLASSES_USERS
EGB_ONEROSTER_UD_VIEW_TYPES	EGB_V_ONEROSTER_CLS_GRDS_NOSYN
EGB_ONEROSTER_UD_VIEWS	EGB_V_ONEROSTER_CLS_GRDS_SYN
EGB_ONEROSTER_YEARS	EGB_V_ONEROSTER_COURSES
EGB_GBRESULT_ONEROSTER	EGB_V_ONEROSTER_DEMOGRAPHICS
	EGB_V_ONEROSTER_ENROLLS_NOSYN
	EGB_V_ONEROSTER_ENROLLS_SYN
	EGB_V_ONEROSTER_GRADINGPERIODS
	EGB_V_ONEROSTER_GRADPR_WITHTRMS
	EGB_V_ONEROSTER_LINEITEMS
	EGB_V_ONEROSTER_ORGANIZATIONS
	EGB_V_ONEROSTER_ORGANIZATIONS_ND
	EGB_V_ONEROSTER_RESULTS
	EGB_V_ONEROSTER_SIF_22_TERMS
	EGB_V_ONEROSTER_TERMS
	EGB_V_ONEROSTER_USERS
	EGB_V_ONEROSTER_USERS_AGT
	EGB_V_ONEROSTER_USERS_SCH
	EGB_V_ONEROSTER_USRS_CLS_T
	EGB_V_ONEROSTER_USRS_STUS
	EGB_V_ONEROSTER_USRS_TCHS

OneRoster – Helpful Admin Reports (found on next 3 pages):

Information	Technical	User Friendly
<p>Classes</p>	<pre> select dc.FIRSTRECORD_DATEADDED, dc.LASTRECORD_DATEADDED, dcc.* from EGB_ONEROSTER_DC dc left join EGB_ONEROSTER_DC_CLASSES dcc on dcc.DCID = dc.ID where DC.ID in (select max(id) DCID from EGB_ONEROSTER_DC where DATACACHE_TYPEID = 6 group by DATACACHE_TYPEID) order by dcc.ID desc </pre>	<pre> select dcc.DATEADDED , org.ORGANIZATION_NAME SCHOOL , dcc.CLASSNAME , dcc.SUBJ , dcc.SECTION_ID , dcc.PERIOD_BEGIN PERIOD , dcc.ROOM_SIMPLE ROOM , case when dcc.ACTIVE = 1 then 'ACTIVE' when dcc.ACTIVE = 0 then 'INACTIVE' end as STATUS from EGB_ONEROSTER_DC dc left join EGB_ONEROSTER_DC_CLASSES dcc on dcc.DCID = dc.ID join REV_ORGANIZATION org on org.ORGANIZATION_GU = dcc.ORGANIZATION_GU where DC.ID in (select max(id) DCID from EGB_ONEROSTER_DC where DATACACHE_TYPEID = 6 group by DATACACHE_TYPEID) Order by org.ORGANIZATION_NAME, dcc.CLASSNAME </pre>
<p>Enrollments</p>	<pre> select dc.FIRSTRECORD_DATEADDED, dc.LASTRECORD_DATEADDED, dce.* from EGB_ONEROSTER_DC dc left join EGB_ONEROSTER_DC_ENROLLS dce on dce.DCID = dc.ID where DC.ID in (select max(id) DCID from EGB_ONEROSTER_DC where DATACACHE_TYPEID = 1 group by DATACACHE_TYPEID) order by dce.ID desc </pre>	<pre> select dce.DATEADDED , dce.SCHOOL_YEAR , org.ORGANIZATION_NAME SCHOOL , c.CLASSNAME , sect.SECTION_ID , per.LAST_NAME + ', ' + per.FIRST_NAME PERSON , dce.SIS_NUMBER 'STU_ID/BADGE_#' , dce.ENROLLMENT_TYPE , case when dce.ACTIVE = 'y' then 'ACTIVE' when dce.ACTIVE = 'n' then 'INACTIVE' end as STATUS , dce.START_DATE , dce.END_DATE from EGB_ONEROSTER_DC dc </pre>

		<pre> left join EGB_ONEROSTER_DC_ENROLLS dce on dce.DCID = dc.ID join EPC_SCH_YR_SECT sect on sect.SECTION_GU = dce.SECTION_GU join REV_PERSON per on per.PERSON_GU = dce.GU_ID join REV_ORGANIZATION_YEAR roy on roy.ORGANIZATION_YEAR_GU = sect.ORGANIZATION_YEAR_GU join REV_ORGANIZATION org on org.ORGANIZATION_GU = roy.ORGANIZATION_GU left join EGB_CLASS c on c.CLASSGUID = sect.SECTION_GU where DC.ID in (select max(id) DCID from EGB_ONEROSTER_DC where DATACACHE_TYPEID = 1 group by DATACACHE_TYPEID) order by org.ORGANIZATION_NAME, c.CLASSNAME, per.LAST_NAME, per.FIRST_NAME </pre>
<p>Users</p>	<pre> select dc.FIRSTRECORD_DATEADDED, dc.LASTRECORD_DATEADDED, dcu.* from EGB_ONEROSTER_DC dc left join EGB_ONEROSTER_DC_USERS dcu on dcu.DCID = dc.ID where DC.ID in (select max(id) DCID from EGB_ONEROSTER_DC where DATACACHE_TYPEID = 2 group by DATACACHE_TYPEID) order by dcu.ID desc </pre>	<pre> SELECT dcu.DATEADDED, dcu.LAST_NAME + ', ' + dcu.FIRST_NAME AS 'USER', dcu.EMAIL, dcu.PRIMARY_PHONE PHONE, CASE WHEN dcu.DISABLED = 'N' THEN 'ACTIVE' WHEN dcu.DISABLED = 'Y' THEN 'DISABLED' END AS 'STATUS', dcu.ROLETYPE, dcu.GRADE FROM EGB_ONEROSTER_DC dc LEFT JOIN EGB_ONEROSTER_DC_USERS dcu ON dcu.DCID = dc.ID WHERE DC.ID IN (SELECT Max(id) DCID FROM EGB_ONEROSTER_DC WHERE DATACACHE_TYPEID = 2 GROUP BY DATACACHE_TYPEID) ORDER BY dcu.LAST_NAME, dcu.FIRST_NAME </pre>

Adding Admin Reports:

1. Navigate to **Admin Reports** screen (Synergy SIS > Grade Book)
2. Add New
3. Complete required fields; share as desired
4. Save

Admin Report

Admin Report | Data Source | Pivot Report

Admin Report

Admin Report Name: OneRoster Classes - Friendly (99 Characters Remaining)

Description: OneRoster Classes - Friendly (972 Characters Remaining)

Grouping Name: OneRoster (81 Characters Remaining)

Sharing: Not Shared (SHARING)

Analysis Band: << No Band >> (edit bands)

Default Display: Advanced Table

Sequence: -1

LMS: Make this report available to the LMS system

TVUE: Make this report available to the TVUE Communications Templates

Configure

Paste SQL from PowerPoint

SQL Query Last execution time: 0.254 seconds

```
select max(d) DCID
from EGB_ONEROSTER_DC
where DATACACHE_TYPEID = 6
group by DATACACHE_TYPEID
)
Order by org ORGANIZATION_NAME, dcc.CLASSNAME
```

Custom Parameters Query Last execution time: 0 seconds

Custom Parameters Query