

OneRoster Cache

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To optimize performance, some student and class data in OneRoster is cached, rather than queried live each time it is needed. These caches are refreshed regularly and changes to specific records trigger individual refreshes, as described later in this article.

Cached data is updated in three ways:

- [Scheduled Refresh](#)
- [Manually Triggered Refresh](#)
- [Refresh Triggered by Data Change](#)

Open **Settings & Management** in the Digital Learning Applications Configuration tool to see the time of the most recent successful refresh of the cache.

Scheduled Refresh

These scheduled refreshes apply to the full cache.

Class-related records and Student-related records are cached and updated hourly from 6:00 AM to 6:00 PM and once overnight at 10:10 pm (local time). The specific time each refresh is triggered is dependent on the system restart time for the district. In non-production environments (sandbox, staging, and training) the cache is updated only nightly.

A Process Alert is sent if either the Class or Student refresh, or both, fails. Alerts are not sent if the scheduled refreshes are successful.

Change Scheduled Refresh Time

Location: [Digital Learning Applications Configuration](#) > [Settings & Management](#) > [OneRoster Daily Cache Refresh Time](#)

To change the time that the daily cache refresh is triggered:

1. Navigate to the Digital Learning Applications Configuration tool.
2. Click **Settings & Management** at the bottom of the screen.
3. In *OneRoster Settings*, change the **OneRoster Daily Cache Refresh Time**. Changes save automatically.
4. Click **Close** when finished.

Off-peak times are recommended. Refreshing the full cache during the school day may negatively impact system performance.

The Daily Refresh Time should occur **before** the vendor does their daily data resync so that the vendor has the most up-to-date data.

Manually Triggered Refresh

Location: Digital Learning Applications Configuration > Settings & Management > Refresh OneRoster Cache

To manually refresh cached data:

1. Navigate to the Digital Learning Applications Configuration tool.
2. Click **Settings & Management** at the bottom of the screen.
3. In *OneRoster Settings*, click **Refresh OneRoster Cache**.
4. Click **Close** when finished.

The refresh begins two minutes after clicking Refresh. A refresh cannot be triggered if one is in progress.

A Process Alert is sent when the refresh is complete.

Refresh Triggered by Data Change

In addition to scheduled and manual cache refreshes, both the Student cache and the Class cache are updated if any of the following actions are performed:

- [Active year](#) is changed.
- Calendar: External LMS Exclude, Start Date, End Date
- Grade Level: record created, record deleted, External LMS Exclude, Name, State Grade Level Code

The following actions trigger a refresh of only the specific record(s) affected, based on record ID:

Person ID Refresh	Section ID Refresh
<ul style="list-style-type: none"> • Enrollment: record created, record deleted, changes to External LMS Exclude, No Show, Grade, End Date • User Account: account created, account disabled, changes to Username, Homepage, Expires Date 	<ul style="list-style-type: none"> • Course: changes to External LMS Exclude, Active, Homeroom, Name, Number, Subject Type, Core Academic Class, SCED Subject Area, SCED Course ID • Section: record created, record deleted, changes to External LMS Exclude, Number, Room, Teacher Display Name

Process Alerts are not sent for refreshes triggered by a change to data.
