

Introduction

Emmersion's Enterprise API provides a way to interact with our assessment platform from your own code. This allows you to integrate our assessments with your software product or automate administrative tasks.

This integration guide describes common use cases for the 2020q3 version of the API.

Steps for Using this Guide

1. Look at the various patterns which describe how you might want to interact with the API.
2. Pick the pattern that best matches your needs.
3. Look at the associated graphic to determine which sections you should read under "Implementation Details"

Note that some of the patterns have alternatives if you cannot use the recommended method (e.g. if a webhook does not work in your situation).

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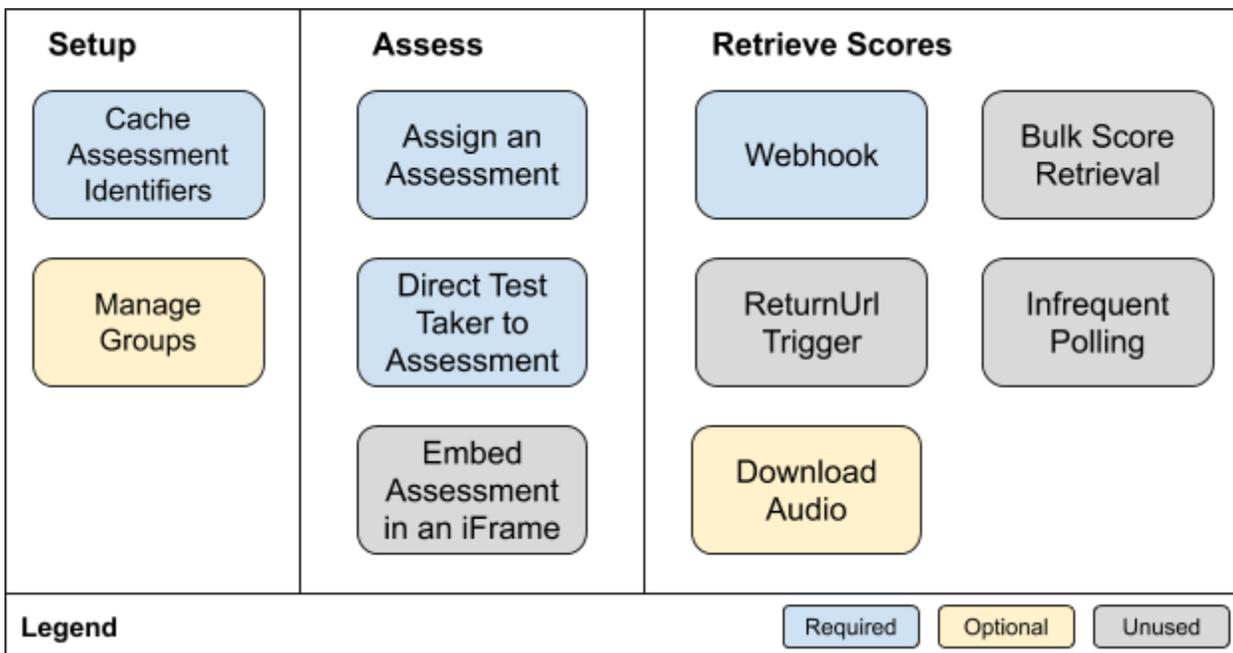
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Integration Patterns

End-to-End Assessment

The Enterprise API can be used to assign assessments and receive the scores on completion. This automates the full assessment process, reducing the need for human interaction via the administrative portal.



When using this pattern, your code manages the assignment of assessments and getting the user to take the assessment in their web browser. Setting up a webhook is the most efficient way to retrieve scores; they are sent to you as soon as an assessment is completed.

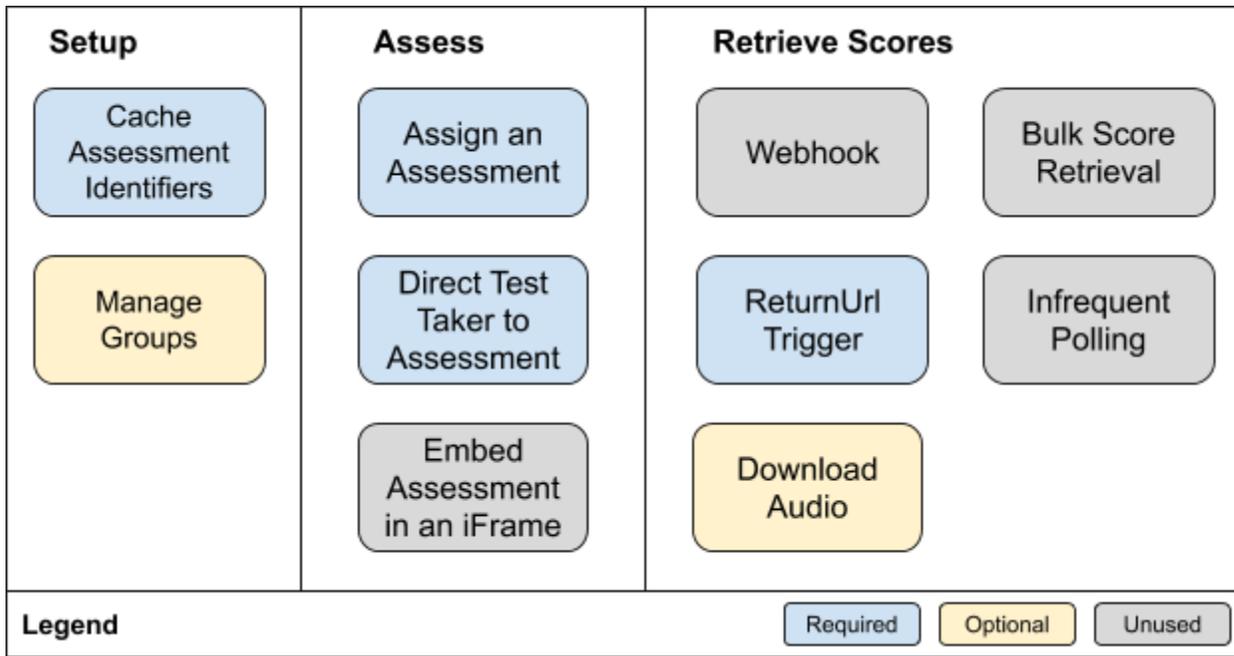
Use this pattern when:

- You wish to programmatically assign assessments and retrieve scores



Alternative: Use a returnUrl Trigger

Instead of setting up a webhook to retrieve scores, you can provide a URL which the test taker will be directed to on completion of their assessment. When this provided *returnUrl* is accessed, you call our API to retrieve the score data.



When using this alternative, we recommend that you avoid putting any sensitive information in the returnUrl because this value will be visible to the test taker and their internet networking.

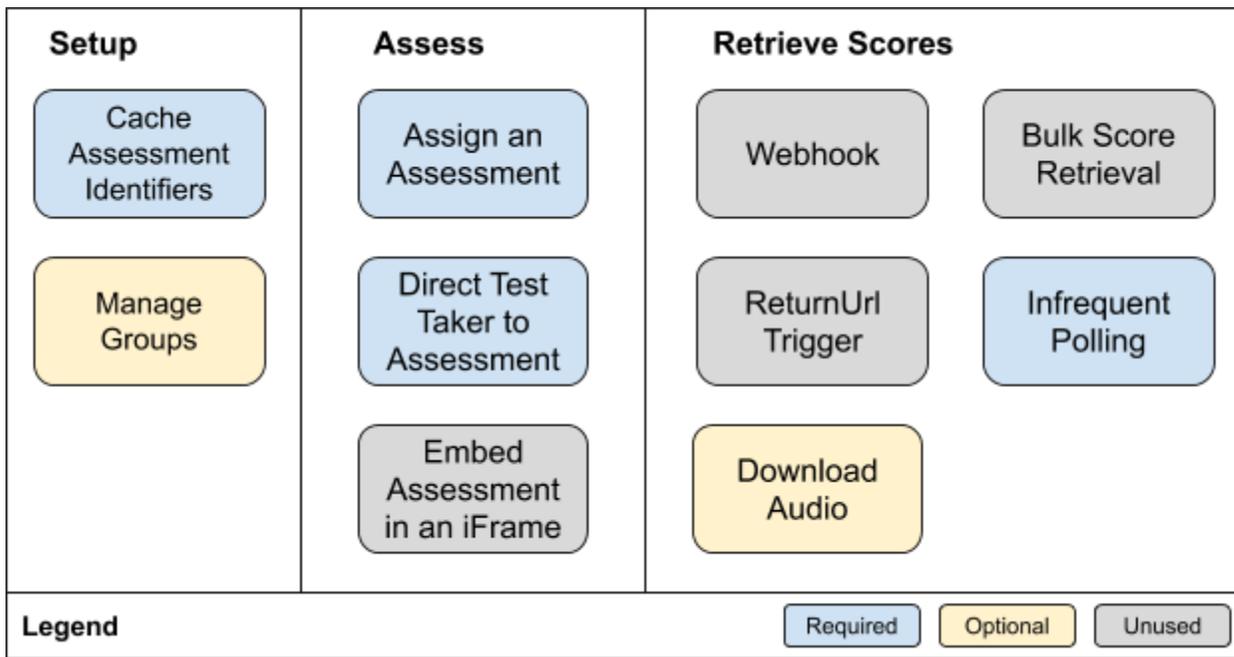
Use this pattern when:

- You wish to programmatically assign assessments and retrieve scores
- Setting up a webhook is not an option

Alternative: Use Infrequent Polling

If you are **unable** to use either a webhook or returnUrl trigger, you can still build an end-to-end integration by falling back to a polling strategy to retrieve scores. After assigning the test, you will periodically call our API to request the score until it is available.





This alternative is the **least efficient way** to retrieve scores because it is difficult to know when and how often to call our API. Making too many API calls will result in rate limiting, which can temporarily disable your integration. Note that the test taker may quit the assessment and resume at a later time, or they may never complete the assessment.

Expect a significant delay between when the user completes the assessment and when you obtain their score.

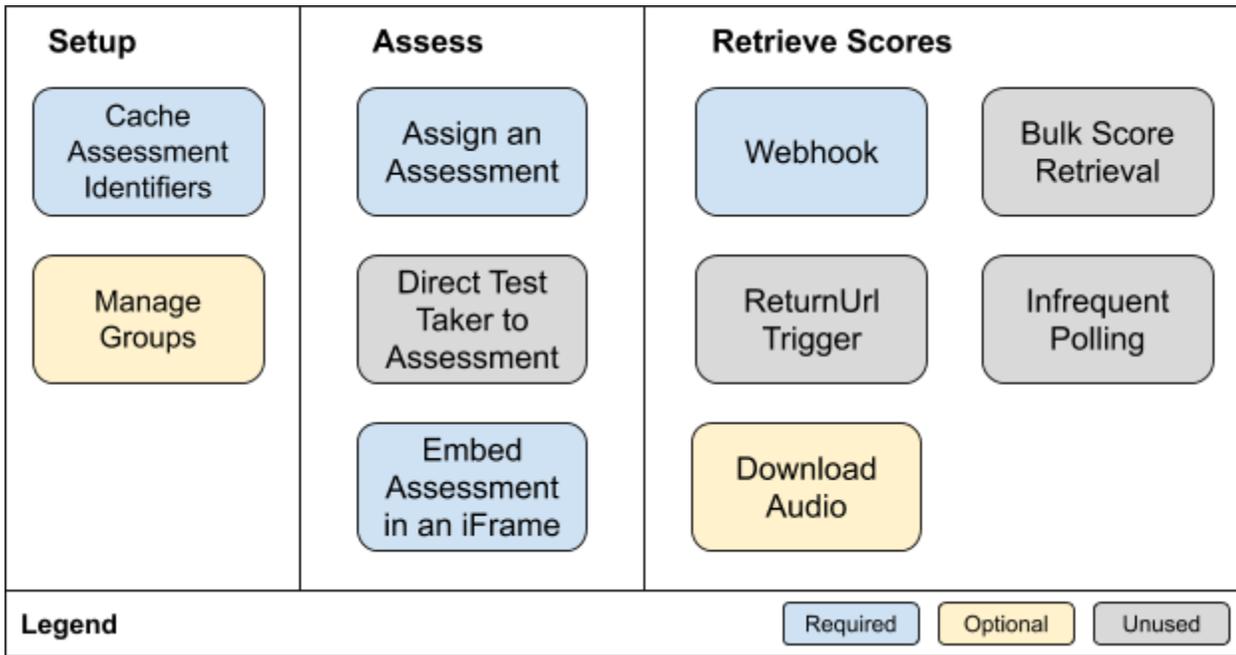
Use this pattern when:

- You wish to programmatically assign assessments and retrieve scores
- Setting up a webhook is not an option
- Using the returnUrl Trigger is not an option
- Obtaining score results after test completion is not urgent

Embedded Assessments

Using the Enterprise API allows you to deliver a TrueNorth or WebCAPE assessment in an <iframe> tag on your website. This can provide a low-friction way to assess the test taker while keeping them connected to your own content or workflow.





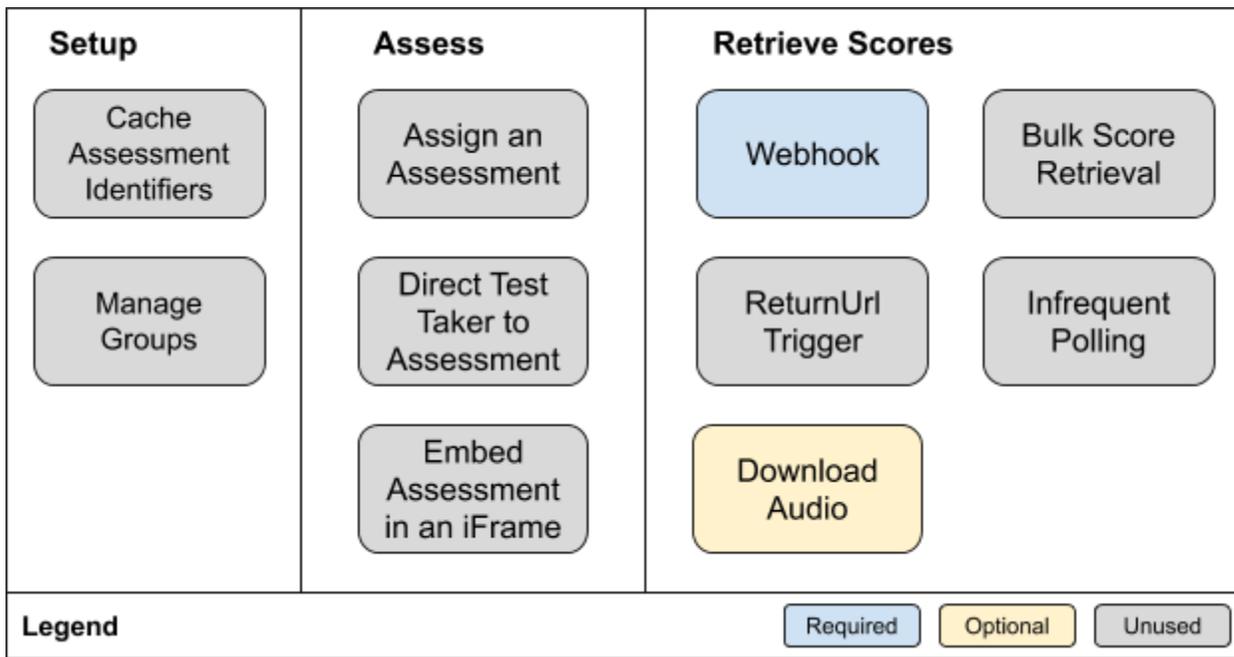
Use this pattern when:

- You wish to programmatically assign assessments and retrieve scores
- You want to keep the test taker on your website

Receiving Scores Only

Emmersion’s administrative portal provides features for managing assessments. If you plan to or are already using these features, the Enterprise API can be used to automate score retrieval for storage, analysis, and/or integration with your own systems.





Setting up a webhook is the most efficient way to retrieve scores; they are sent to you as soon as an assessment is completed.

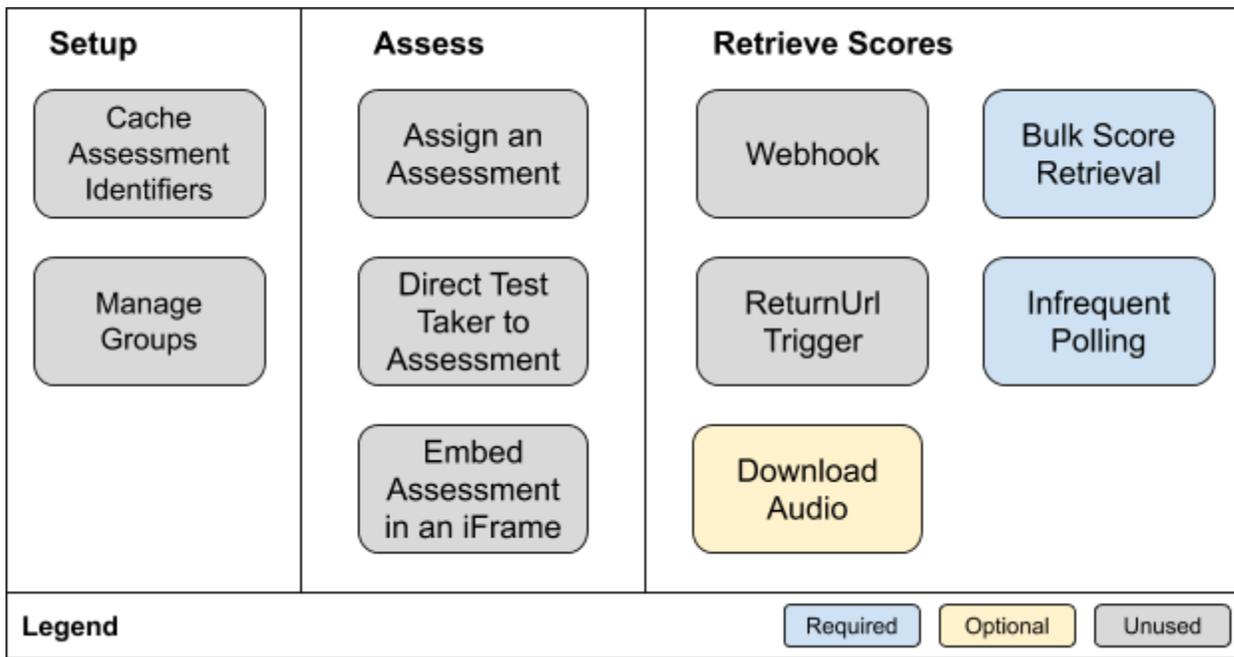
Use this pattern when:

- You want to automate score retrieval
- Assessments are being assigned to test takers in some other way

Alternative: Bulk Score Retrieval

If setting up a webhook is undesirable, the API can be used to retrieve score data in bulk. This can be an excellent option when there is no urgency to retrieving the scores and you wish to automate retrieving them on a daily, weekly, or monthly basis.





Unfortunately, the current version of the Enterprise API has some limitations that make this use case more difficult when you have a high volume of tests. This is why we recommend using a webhook if possible.

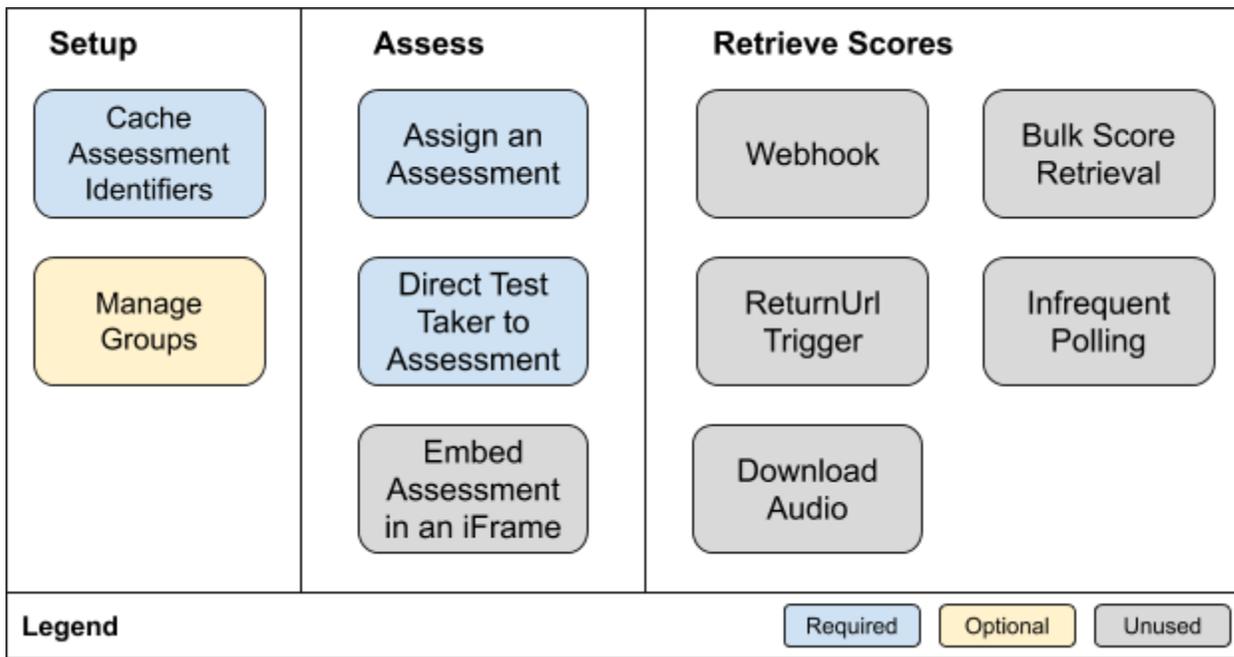
Use this pattern when:

- You want to automate score retrieval
- Assessments are being assigned to test takers in some other way
- Setting up a webhook is not an option

Assignment Only

Some customers want to automate or customize the way they assign assessments to test takers, but like to use the administrative portal's features for looking at the score results.





This can also provide a higher degree of control (e.g. reducing typos) when new test takers are created in the system since you provide their personal information.

Use this pattern when:

- You want to programmatically assign assessments
- You want to manage the creation of test takers in the Emmersion system

Implementation Details

Setup

Cache Assessment Identifiers

Before you can assign an assessment, you will need the *assessmentId* for that assessment. Call the [get list of assessments](#) endpoint to find those values.

The *assessmentId* values only change when assessments associated with your account are added, removed, or upgraded to a newer version. Thus you can safely cache this information for days, weeks, or even months, and you should not be making this call every time you wish to assign an assessment.



Manage Groups

The API has endpoints which allow you to [create new groups](#) and [list the groups](#) for your account. If you provide one or more *groupId* values when [assigning an assessment](#), the user will be assigned to those groups.

Assigning users to groups can make it easier to organize and filter your data in the administrative portal. Additionally, it can be used to filter data when [retrieving scores in bulk](#).

Assess

Assign an Assessment

The [assign assessment to user](#) endpoint makes a specific assessment available for a test taker. This endpoint will create new users in the Emmersion system if necessary, or will assign additional assessments to existing users.

We strongly recommend that you provide your own *uniqueIdentifier* for each user so you can easily reference the same user in other API calls (e.g. when retrieving scores).

When assigning additional assessments to the same user, be sure to send the same *uniqueIdentifier* or *emailAddress* in the subsequent requests. You should also consider recording the *userAssessmentId* that is returned in the response -- this identifies the specific assignment so you can create sign-in links and match it up with their score later.

When assigning an assessment, you can optionally provide a *returnUrl* value. When a user completes the assessment, they will be directed to the *returnUrl* instead of being shown their score report. This is useful when you want the user returned to your site or when you want to control the presentation of their scores.

Direct Test Taker to Assessment

The Enterprise API provides secure, single-use *signInUrl* links which automatically authenticate test takers to the Emmersion platform so they can take an assigned assessment. These links expire within 5 minutes of creation for security reasons. This means that your integration will need a just-in-time component: you must call our API to get the *signInUrl* at the point when the test taker is ready to be assessed.

The [assign assessment](#) endpoint returns a *signInUrl* which can be used if the test taker is meant to start the assessment immediately following the assignment. But if the user is not taking the assessment until later, or if they need to resume the test afterward for any reason, then you can call the [generate auto sign in link](#) endpoint to create a new *signInUrl* link.



Provide the *userAssessmentId* value obtained when assigning the test if you want the link to take the test taker directly into the assessment. Otherwise they will be directed to the Emmersion dashboard where they can select one of their assigned assessments.

Embed Assessment in an iFrame

To launch a TrueNorth or WebCAPE assessment from an `<iframe>` on your website, you will need to call the [generate auto sign in link](#) endpoint with an associated *userAssessmentId* **every time** that the `<iframe>` is rendered (because the links are single use).

The *signInUrl* is used as the `iframe src` attribute. We recommend a minimum width and height of 800 pixels. TrueNorth tests require microphone access to function properly; you will need to provide the correct *allow* attribute.

Here is example HTML markup for an `iframe`:

```
<iframe
  src="https://api.emmersion.ai/api/users/sign-in-with-token?token=6c42c316-9ba6-4a
  bc-b92e-3b887b35b9a0"
  allow="microphone https://app.emmersion.ai"
  width="1200"
  height="800">
</iframe>
```

Retrieve Scores

Webhook

To use a webhook for receiving score data, you must first call the [register webhook](#) API endpoint to provide a *url* to which score data will be sent. This *url* must be a publicly accessible HTTP endpoint which will accept application/json formatted data as POST request.

You only need to register the webhook once. After that, every time that an assessment is scored, the Emmersion system will make a POST request to your provided *url* with the relevant [score data](#).

ReturnUrl Trigger

This method of retrieving scores requires you to provide a *returnUrl* value when assigning an assessment. When the user completes the assessment, their web browser will be directed to that *returnUrl* which should cause your system to call the [get user scores](#) endpoint to obtain the score data.

You may provide *returnUrl* values that contain unique tokens or identifiers so you can tell which user data needs to be obtained. However, we strongly recommend that you do not include any sensitive data, such as PII.



Note that using this method means that the user will not see their score report on the Emmersion platform. If you want them to see their results, you will need to display the relevant information on the page.

If users are expected to visit the *returnUrl* link multiple times, please cache the score results on your end so you do not need to call the API multiple times.

Infrequent Polling

If you are unable to use the Webook or returnUrl Trigger methods of accessing score data, you can instead call the [get user scores](#) endpoint multiple times until the assessment is completed and a valid score returned. The *status* value of the *scoreReport* will be *Completed* once the user has finished the assessment.

To reduce bandwidth and avoid hitting the rate limits of our API, we recommend that you do not poll more quickly than every 5 minutes. Longer intervals are encouraged, especially if you are querying for multiple users simultaneously. Please remember that users may return to finish later, or they may abandon the assessment before completing it.

This option is least preferred due to the number of API calls required and the uncertainty around when (or if) the assessment is completed.

Bulk Score Retrieval

The [get all scores](#) endpoint can be used to retrieve assessment scores for multiple users at once. If using this score retrieval method, we recommend you limit calls to a daily or weekly cadence.

Unfortunately, this endpoint currently cannot filter by assessment *completion* date, only by *start date*. This can make it difficult to get all score results. Therefore, we recommend that you use this endpoint to learn about assessments in bulk (filtered by start date), then call the [get user scores](#) endpoint in subsequent checks.

For example, if you are fetching scores from the API once a day:

1. Call the [get all scores](#) endpoint, with *startedOnOrAfter* set to the start of the previous day.
 - a. For each score report that is marked *Completed*, save the score on your end.
 - b. For each score report that is not *Completed*, save a record of each *userId* and *userAssessmentId* pair, so you can request it again the next day.
2. For each record you've stored from previous days which is still not completed, call the [get user scores](#) endpoint to get the data specific to that user.
 - a. If it is now complete, save the score on your end and mark or delete the record so you do not query it again the next day.
 - b. If it is still incomplete, try again the next day.



Download Audio

The [download open response audio](#) endpoint allows you to obtain the free-form responses that test takers submit as part of those TrueNorth tests which include the open response section. Listening to this audio can give you additional confidence in a test taker's ability.

