
D2L Brightspace

Overview

The D2L Brightspace product integration provides users with a live tile that displays counters as alerts for new discussions, unattempted quizzes, and new feedback on assignments.

User Experience

The following section describes information relating to the user experience for the D2L Brightspace product integration.

User Activities

- Users can view alerts for new discussions, unattempted quizzes, and new feedback on assignments from their home screen on the live tile.
- Users are redirected to either the D2L Brightspace domain (if on the web) or to the Pulse mobile app (if on a mobile device) when the tile is clicked.

Authentication

The D2L Brightspace product integration uses an OAuth Integration Profile (configured at **App Settings > Integration Profile > Add Integration Profile**). This must be configured before the product integration will work. See [OAuth Integration Profile Configuration](#). For additional details on how to configure an OAuth Integration Profile, see [OAuth2](#).

The following is the authentication workflow:

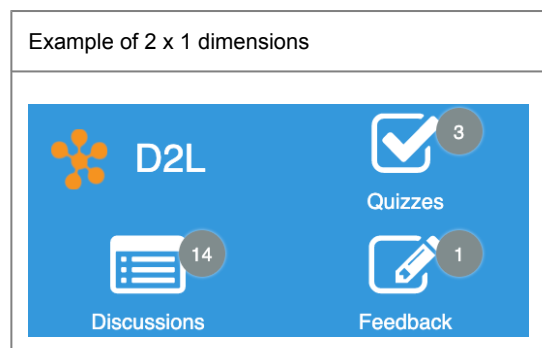
1. The end-user opens the D2L Brightspace tile.
2. campusM requests a token from the D2L Brightspace token API.
3. The user logs into D2L Brightspace (if they have not already done so).
4. If valid, D2L Brightspace sends a response with the user's access token.
5. campusM sends the access token with every D2L Brightspace API request made.
6. The token is automatically refreshed on expiration unless the user has logged out of the campusM app or their D2L Brightspace session.

Offline Support

- None provided - the user must be online to fetch the D2L Brightspace data.
- D2L Brightspace data is not cached on the user's device. A live tile is intended to present fresh data. To configure the time between updates, see [Product Integration Configuration](#).

Screenshots

The following is an overview of the D2L Brightspace product integration user interface for reference when configuring it.



Live Tile Configuration Rules

The D2L live tile is designed to work with the following sizes. The tile will attempt to display as many elements as possible regardless of the dimensions set, but we cannot guarantee the intended experience if you do not adhere to the following dimensions. The tile dimensions are set in the App Builder, while the widgets per row (and other details) are set in the Configuration page for this product integration.

- 1 wide x 1 high
 - This is a special case. The tile only displays one widget (the highest prioritized, enabled widget).
- 2 wide x 1 high
 - We recommend using 1 - 2 widget rows and using 1 - 3 widgets per row.
- 2 wide x 2 high
 - We recommend using 2 - 3 widget rows and using 1 - 3 widgets per row.
- 3 wide x 1 high
 - We recommend using 1 - 2 widget rows and using 2 - 4 widgets per row.
- 3 wide x 2 high
 - We recommend using 2 - 3 widget rows and using 2 - 4 widgets per row.

We also recommend keeping the header text and widget labels for the live tile short.

Technical Overview

The following section describes technical information for the D2L Brightspace product integration.

Supported Versions

The relevant API version for the Learning Platform and the Learning Environment must be specified in the product integration configuration page and in the OAuth integration profile. These versions are used during the API calls. See the [Brightspace Developer Platform](#) for the versions that D2L Brightspace supports.

Note

D2L has product versions for different product components. For example, the Learning Platform will have a version such as “20.20.1”, but the API associated with that product component will have a version such as “1.29”. For your instance, check for version support. For more details, see [Checking for Version Support](#).

Prerequisites

The following prerequisites are required to configure the D2L Brightspace product integration:

For the prerequisites that must be completed in D2L Brightspace, see [Setting up OAuth 2.0 authentication](#).

- Format the redirect URI as follows: `{{your_campusM_app_hostname}}/cmauth/oauth/callback`, for example: `https://my-app.name.com/cmauth/oauth/callback`.
 - This URL is not meant to be accessible. It is used by our cloud platform to complete the OAuth authentication flow.
 - The required scope is: `core:*:*`
 - It is advised that you register all of your campusM apps (typically Dev and Prod)
- An integration profile for D2L Brightspace must be configured for the product integration. See [OAuth Integration Profile Configuration](#). For additional details on how to configure an OAuth Integration Profile, see [OAuth2](#).
- Verify with Ex Libris that D2L is included as an app added to the allow list (apps.brightspace). This is necessary for deep linking on mobile devices.

Configuration

To configure the D2L Brightspace product integration, first configure an authentication integration profile (subtype OAuth) that you then select in the product integration configuration section.

OAuth Integration Profile Configuration

You add and edit integration profiles from [App Settings > Integration Profile > Add Integration Profile](#).

The following table describes the configuration options available on this page. All values are exactly as-is unless listed otherwise.

Configuration Option	Description
Name	Anything unique that describes the integration profile
Description	A description of the profile (this is not a required field)
Type	Authentication
Subtype	OAuth
OAuth Client ID	The client ID from D2L Brightspace

Configuration Option	Description
OAuth Client Secret	The client secret from D2L Brightspace
Authorization Endpoint	https://auth.brightspace.com/oauth2/auth
Access Token Endpoint	https://auth.brightspace.com/core/connect/token
Token Endpoint Auth	Post
User Info Endpoint	<p>This is the endpoint used to grab information about the user. You must include the relevant API version related to your Learning Platform version. As described in Support Versions, D2L has product versions for their different product components. For example, the Learning Platform will have a version such as “20.20.1”, but the API associated with that product component will have a version such as “1.29”. For your instance, check for version support. For more details, see Checking for Version Support.</p> <pre>{{your_D2L_hostname}}/d2l/api/lp/{{your_learning_platform_version}}/users/whoami</pre> <p>Example: https://partners.brightspace.com/d2l/api/lp/1.29/users/whoami</p>
OAuth Scope	core:*
Extract OAuth Tokens	Yes
Username Mapping	Identifier
Mail Mapping	UniqueName
First Name Mapping	FirstName
Last Name Mapping	LastName

Product Integration Configuration

Once the Integration Profile is set up, you can configure the D2L Brightspace product integration, by selecting **Product Integrations > Add Product Integration > LMS/VLE > D2L Brightspace**. The following table describes the configuration options available on this page.

Configuration Option	Description	Mandatory	Data Type	Default	Example
Enable Product Integration	Select to enable the product integration on the user's campusM app.	No	Boolean	False	True
Product	A description of the product integration for	Yes	String		D2L Brightspace

Configuration Option	Description	Mandatory	Data Type	Default	Example
Integration Description	internal use.				
Screen Title	The title that displays in the top header of the service.				
Vendor					
Integration Profile	The OAuth integration profile used by the end-user to authenticate with Blackboard.	Yes	String		
URL to retrieve the information	This is the base URL for the D2L Brightspace instance.	Yes	String		https://partners.brightspace.com
Learning Platform Version	This specifies the API version to be used in the endpoint which relates to the Learning Platform version.	Yes	String	1.29	
Learning Environment Version	This specifies the API version to be used in the endpoint which relates to the Learning Environment version.	Yes	String	1.48	
Live Tile					
Enabled	This enables the live tile.	No	Boolean	True	
Badge Color	This sets the background color for the badges on the live tile.	No	Hex Code	#ffffff	
Update Rate	This sets the frequency of updates from D2L Brightspace to the live tile (in minutes).	No	Integer	30	
Aggregate Counter	This enables the live tile to have an aggregate counter for notifications, instead of three separate counters.	No	Checkbox	False	
Show Live Tile Header Text	Select to display the header on the live tile. If cleared, the text does not appear in the header. If both the header text and the header logo are disabled, the header does not appear.	No	Checkbox	True	
Show Live Tile Header Logo	Select to display the logo on the live tile. If disabled, the logo does not appear in the header. If both the logo and the header text are disabled, the header does not appear.	No	Checkbox	False	
URL for Header Logo	The URL of the image to be used as the logo in the header.	No	String		
Header Width	This sets the width of the header on the live tile. The header can take up a width of 1 or 2 widget slots.	No	Dropdown	2	

Configuration Option	Description	Mandatory	Data Type	Default	Example
Customise Live Tile Header Padding	If enabled, enables you to customize the blank space around the header block. All values have a minimum of 0.	No	Checkbox	No	
The First Widget(s) Should Display on the Same Row As the Header	If disabled, the first widget row will start below the header.	No	Checkbox	No	
Widgets Per Row	This sets the number of widgets to display per row. There is a minimum of 1 and a maximum of 5.	No	Integer	3	
Show Discussions	Displays the widget on the live tile.	No	Checkbox	True	
Show Quizzes	Displays the widget on the live tile.	No	Checkbox	True	
Show Feedback	Displays the widget on the live tile.	No	Checkbox	True	
Always Display Widget Count	Displays widget badge even if the count is zero.	No	Checkbox	True	
Default To Action URL	If enabled, the live tile defaults to the Action (URL) setting in the App Builder rather than the default Brightspace Pulse linking.	No	Boolean	False	
Priority	This ordered list prioritizes the items that appear on the live tile. The item at the top of the list appears first, while the last item appears last.	No	Ordered List	Priority	
Use Custom Icons	Select to use custom icons instead of the default live tile icons.	No	Boolean	False	
URL	Enter the URLs of custom images for the icons of the various widgets.	No	String		
Live Tile Header Text	This sets the text for the live tile header. It displays if the Show Live Tile Header Text checkbox is selected. It is recommended you keep this text short.	No	String	D2L	
Text - "Discussions"	This sets the label for the widget.	No	String	Discussions	
Text - "Quizzes"	This sets the label for the widget.	No	String	Quizzes	
Text - "Feedback"	This sets the label for the widget.	No	String	Feedback	
Import/Export Configuration					
Export	Creates a JSON file with the product integration	No			

Configuration Option	Description	Mandatory	Data Type	Default	Example
	configuration.				
Import	Use this option to load configuration from JSON of an exported product integration.	No			